```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9n:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                              1447
1447
1447
          100.0
100.0
100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-845-416-14_COPY_2000_3446
1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5394803 seqs, 2962729879 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 gaccettgaaagactecagg.....aaactecegacacaatgtag 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   March 2, 2005, 06:35:12 ; Search time 865.096 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                 Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Published Applications NA:*

[1] /cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*

[2] /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*

[3] /cgn2_6/ptodata/2/pubpna/USO5_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        / Cgn2_6/ptodata/2/pubpna/US09_FUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US09_NEW_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq: */cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq: */cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptodata/2/pubpna/US10_PUBCOMB.seq: */cgn2_6/ptod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cgn2_6/ptodata/2/pubpna/US07
                                                                                                                                                                                                                                                                                                                                                                                                                    Length DB
                                                                                                                                                                              3858
3999
4182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _6/ptodata/2/pubpna/PCTUS PUBCOMB.seq:
_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
             10000000000
   US-09-845-416-12
US-09-845-416-10
US-09-845-416-0
US-09-845-416-6
US-09-845-416-6
US-09-845-416-32
US-09-845-416-31
US-09-845-416-31
US-09-845-416-31
US-09-845-416-31
US-09-845-416-32
US-09-845-416-31
US-09-845-416-33
                                                                                                                                                                                                                                                                                                                                                                                                                    ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (without 9911.195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NEW_PUB.seq:*
S_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             alignments)
Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                 Description
Sequence 9, Appli
Sequence 6, Appli
Sequence 2, Appli
Sequence 32, Appli
Sequence 31, Appl
Sequence 30, Appli
Sequence 30, Appli
Sequence 35, Appli
                                                                                                                                                                                                                                                                         Sequence 14, Appl
Sequence 12, Appl
Sequence 10, Appl
```

45	44	43	42	41	40	39	38	37	36	ω 5	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
88	114	216	324	647.8	738.2	747	747	771.2	779.2	887	1259.6	1429.6	1433.6	1433.6	1433.6	1434	1434	w	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1437.6	1447	1447	1447	1447
6.1	7.9	14.9	•	44.8				53.3					99.1	99.1	99.1	99.1	99.1	99.1	99.4	99.4	99.4	99.4	99.4	99.4	•	99.4		99.4		٠	100.0		100.0
2247	114	216	324	5106	16531	10302	10302	11096	10705	887	13815	5417	12057	5462	5339	2169	1821	1434	14082	14082	14082	14069	14069	13957	13957	13957	11443	11058	8689	5149	5060	4990	4966
φ	17	17	17	17	15	17	9	17	17	17	17	17	17	17	17	10	10	10	17	17	17	17	17	17	φ	9	17	10	17	10	10	10	10
US-09-960-253-157	US-10-149-736-45	-10-149-73	US-10-149-736-33	US-10-220-120-157	US-10-101-510-667	US-10-149-736-3	8A-	US-10-149-736-4	US-10-152-319A-1598	US-10-149-736-35	-10-149-736-	US-10-149-736-39	-10-149-736	-10-149-736	US-10-149-736-40	-09-845-416-	-09-845-416	US-09-845-416-15	US-10-342-887-981	US-10-172-118-981	US-10-341-434-108	US-10-342-887-434	US-10-172-118-434	US-10-149-736-1	US-09-880-107-2284	US-09-782-378A-22	-736-		-10-149-736-	US-09-845-416-27	-09-845-416-	-09-845-416-	US-09-845-416-28
157,	e 45,	e 34,	33,	157,	667,	ω,	23,	e 4, App	e 159	e 35,	e 2, 1	e 39,	47	e 41	40	4.	æ	e 15	e 98:	e 98:	10	434,	434	e 1, A	2284	22,	44	e 1,	e 42	e 27	e 36	e 34,	Sequence 28, Appl

ALIGNMENTS

```
RESULT 1
US-09-845-416-14
                                                밁
                                                                                         Ś
                                                                                                                                              ₽
                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-14
                                                                                                                                                                                                                                          Query Match 100.0%; Score 1447; Best Local Similarity 100.0%; Pred. No. 0; Matches 1447; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 14, Application US/09845416 Publication No. US20030171312A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DAMA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 3446
                                                                                                                                                 2000 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
121 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                              61 CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT 120
                                                                                                                                                                       GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG 60
                                                                                                                                                                                                                                                                                               DB 10; Length 3446;
                                                                                                                                                                                                                                               0; Indels
                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                               Gaps
                                                                                                                                                   2059
                                                  2119
```

781 AGGANGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGATAACACGAACCAACC	· · · · · · · · · · · · · · · · · · ·	
Query Match Best Local Similarity 100.0%; Score 1447; DB 10; Length 3510; Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps 0; Matches 1447; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 1 GACCCTTGAAAGACTCCAAGGAACTTCAAGAGGCCACGAATGAGCTGGACCTCAAGCTGCG 2123 Qy 61 CCAAGCTGAAGACTCCAAGGAACTTCAAGAGGCCACGAATGAGCTGGACCTCTAAGCTGCG 2123 Qy 61 CCAAGCTGAAGTGATCAAGGGATCCTGGCAGCCACGGATGAGCTGGACTCTCT 120 Db 2124 CCAAGATCACCTCCAAGGAACTTCAAGGAGCCACGGATGAGCCATTCCACCTCTCTCT	NESULT 2 US-09-845-416-12 US-09-845-416-12 Sequence 12, Application US/09845416 Publication No. US20030171312A1 GENERAL INFORMATION: APPLICANT: XIAO, XIAO TITLE OF INVENTION: DAM SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR FRILMG DATE: 2001-04-30 PRIOR FILING DATE: 2001-04-28 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 12 LENGTH: 3510 TYPE: DNA OGGANISM: Homo sapiens US-09-845-416-12	Db 3200 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 3259 Qy 1261 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320

B 8 B

δ

유

Dy Dy

중 음 정

유 상 유

8 B 8

04 04 05 05

유 성

25 SS SS

음 성

중 유

망

```
र्
                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                           S
                                                                                          밁
                                                                                                                 S
                                                                                                                                           문
                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
               ð
                                            밁
                                                                                                                                                                                                                                                                                           3144
                                                                                                                                                                                                                                                                                                                                                                                          3024
                                                                                                                                           3324
                                                                                                                                                                    1261
                                                                                                                                                                                            3264
                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                         3204
                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                          3084
                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                           3384
                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                          2964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2484
                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2544
                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                        AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                       CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                       CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                        CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT 3023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCTTGGACCAGCACAAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 2603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTTGCCAAGGTACTAAAAAACAAATTTCGAAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                            CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                           CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                           CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                           TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                        TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 1080
                                                                                                                                                                                                                                                                                                                                                                                          TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                          TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTGAAGT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGAGGATCCGTGTCTCTTTAAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGGAGGATCCGTGTCCTTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540
                                                                                                                                             AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                     AATGTAG 1447
                                                                    AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCGACAC 1440
3510
                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2543
                                             3503
                                                                                              3443
                                                                                                                    1380
                                                                                                                                             3383
                                                                                                                                                                                            3323
                                                                                                                                                                                                                                           3263
                                                                                                                                                                                                                                                                                           3203
                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                          3143
                                                                                                                                                                                                                                                                                                                                                                                          3083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
     S
                                                                                밁
                                                                                                       á
                                                                                                                                멍
                                                                                                                                                  S
                                                                                                                                                                                밁
                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                   밁
                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                 2445
                                                                                                                                                                                                                                                                                2385
                                                                                                                                                                                                                                                                                                                                2325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2145
                                                                                                                                                                                  2505
                                                                                                                                                                                                                                                                                                                                                                                                                               2205
                                                                                  2625
                                                                                                                                 2565
                                                                                                                                                        481
                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
```

RESULT

```
Sequence 10, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: UNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: UNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: UNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 10
LENGTH: 3531
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-10
                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-845-416-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2085 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 atch 100.0%; Score 1447; cal Similarity 100.0%; Pred. No. 0; 1447; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 780
                                                                               TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT 720
                                                                                                                                                                                 TGCCTTGGACCAGCACCACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                     ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                          CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                       CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGAGCCACGTCAATGACCTTGCCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                      TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                           <u>ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USE
                                                       2804
                                                                                                                                                         2744
                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                           2684
                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                               2624
                                                                                                                                                                                                                                                                                                                                                                                                                                                               2564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2144
                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
Sequence 9, Application US/09845416
; Publication No. US20030171312A1
; GENERAL INFORMATION:
; APPLICANT: XIAO, XIAO
; TITLE OF INVENTION: DNA SEQUENCE ENCODING A E TITLE OF INVENTION: THEREOF
; FILE REFERENCE: DE1142
; CURRENT APPLICATION NUMBER: US/09/845,416
; CURRENT APPLICATION NUMBER: 60/200,777
pRIOR APPLICATION NUMBER: 60/200,777
pRIOR FILLING DATE: 2001-04-30
pRIOR APPLICATION NUMBER: 60/200,777
pRIOR FILLING DATE: 2000-04-28
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 9
LENGTH: 3858
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-9
                                                                                                                                                                                       RESULT 4
US-09-845-416-9
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                  & 유
                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                    3465
                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                           3405
                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                 3345
                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                        3285
                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                               3225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                             AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCGACAC
                                                                                                                                                                                                                                                                                                             CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                      AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                             AATGTAG 1447
                                                                                                                                                                                                                                                                                                  ĊŦŦŦĠĊĊAĠĠŦĀĊŦĀĀĀĀĀĀĀĊĀĀĀŦŦŦĊĠĀĀĀĊĊĀĀĀĀĠĠŦĀŦŦŦŦĠĊĠĀĀĠĊĀŦĊĊĊĊĠ
                                                                                                                                                                                                                                                                                                                                        AATGCACTATCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                               ĊŦŦŦĸŔŦŦŔŦĠŔĊŔŦĊŦĠĊĊŔĸŔĠĊŦĠĊŦŦŦŦŦŦŦĊŦĠĠŦĊĠŔĠŦŦĠĊŔĸĸĸĠĠĊĊŔŦĸĸ
                                                                                                                                                                                                                                                                                                                                                                                         CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                     CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAAGACAAGTACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAAGATCCGTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A DYSTROPHY MINIGENE
                                                                                                                                                                                                                                                                                1440
                                                                                                                                                                                                                                                                                                    3464
                                                                                                                                                                                                                                                                                                                                         3404
                                                                                                                                                                                                                                                                                                                                                                                                                      3284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                            3224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2864
        밁
                          Ş
                                              밁
                                                              S
                                                                                    멍
                                                                                                      Ş
                                                                                                                          밁
                                                                                                                                            Ś
                                                                                                                                                                  뮍
                                                                                                                                                                                S
                                                                                                                                                                                                         맑
                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                        Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
```

```
S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 1447; Conserv
                                                                                                   3312
           1021
                                                                                                                                                              3252
                                                                                                                                                                                                                           3192
                                                                                                                                                                                                                                                                                       3132
                                                                                                                                                                                                                                                                                                                                                    3072
                                                                                                                                                                                                                                                                                                                                                                                                             3012
                                                                                                                               901
                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2892
                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2832
                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2712
                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTC
                             TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                               TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                         GGCAGGCTGGGCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                          GCGCAGGCTGCGCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                    GAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                        GGAAGACAAGTACCAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                 AGGAGGATCCGTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                              AGGAAGGATCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                              CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGACGAAC 780
                                                                                                                                                                                                                                                                          CCCTCTGCGCGTGGATATGTGTGTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 3191
                                                                                                                                                                                                                                                                                                                                      TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                          TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                 TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ĊŦĀĊĊĀĠŦĊŦŦŦĀĠĊŦĠĀĊĊŦĠĀĀŦĀĀŦĠŦĊĀĠĀŦŦĊŦĊĀĠĊŦŦĀŦĀĠĠĀĊŦĠĊĊĀŦĠĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ceaegacceaercaecaecaecareaaececaeaeaecerrregrecaecareaeca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACGAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cereaeccacercaareaecrrececcaecrraccacrrreeecarreaecrereaec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĠAĊĊĊŤTĠAAAĠAĊTĊĊAĠĠAAĊŤŤĊAAĠAĠĠĊĊĀĊĠĠAŤĠĀĠĊŤĠĠĀĊĊŤĊĀĀĠĊŤĠĊĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; ilarity 100.0%; Conservative 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    %; Score 1447;
%; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۰,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                         3371
                                                                                                                     960
                                                                                                                                                                                                                                             840
                                                                                                                                                    3311
                                                                                                                                                                                   900
                                                                                                                                                                                                                 3251
                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                   3071
                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                               3011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

GENERAL IMPORMATION: PUBLICATION O. US2003017131AA1 GENERAL IMPORMATION: ARPLICANTIC XIAO, XIAO TITLE OF INVENTION: THEREOP FILE REFERENCE: DE112 CURRENT APPLICATION UNMEER: 09/09/845,416 CURRENT APPLICATION UNMEER: 05/00-04-28 PRIOR APPLICATION NUMBER: 05/200,777 PRIOR PILING DATE: 2001-04-30 PRIOR PELICATION NUMBER: 05/200,777 PRIOR PILING DATE: 2000-04-28 US-09-845-416-6 QUERY MATCH SEQ ID NOS: 36 SOFTWARE: Patentin Ver: 2.1 SEQ ID NOS LENGTH: 3999 TYPE: DNA CORGANISM: Homo sapiens US-09-845-416-6 QUETY MATCH Best Local Similarity 100.0%; SCOTE 1447; DB 10; Length 3999; Best Local Similarity 100.0%; Pred. No. 0; Matches 1447; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Matches 1447; Conservativ	Db 3432 TRATAGCCAGAGCTCCAAGCGCCCCTCTTCCTAGAACTGGAAACTCGGAAACCCCAGTC 3491 Oy 1081 CATGGTGTGGCTGCCCGTCCTGCACAGAATGGCAAAACTGCCAAACATCAGGC 1140 Db 3492 CATGGTGTGACTTCCCAAAGAGTGCCAAAAACTGCCAAAACTCAGGC 1140 Oy 1141 CAAAATGTAACATCTGCCAAAGAGTGTCCAATCAATTGGAATTCAGGAATCAAGCATCAAGCA 1200 IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
2	8 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
CCCTCTCTGCGTGGATATGTTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACCATTT AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT AGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATTTTCCAACAGGATTTTGTGACCA	241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT

吊 Ş В Ş 밁

```
Sequence 2, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND FILE REFERENCE: DEL142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT APPLICATION NUMBER: 09/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-30

PRIOR FILING DATE: 2000-04-28

NUMBER: OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 2

LENGTH: 4182

TYPE: DNA

ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 6
US-09-845-416-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1447; Conservative C
                                         3216
                                                                                               3156
                                                                                                                                                          3096
                                                                                                                                                                                                                  3036
                                                                                                                                                                                                                                                                           2976
                                                                                                                                                                                                                                                                                                                                   2916
                                                                                                                                                                                                                                                                                                                                                                                            2856
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2796
                                                                     481
                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2736
                                                                                                                                                                                    361
                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19
                             CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                            CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540
                                                                                     cTactatatcaaccaccacaactcaaacaacttccccaaccatcccaaaatcacacacct
                                                                                                       CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGGCT
                                                                                                                                                                                                                      CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                                                              CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCC
                                                                                                                                                                  CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGCGATCTCGCCAAACAAGTGCC
                                                                                                                                                                                                       GAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                               GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                                                                                                                                                                                                                        ĆĠŦĠĀĠĊĊĀĊĠŦĊĀĀŦĠĀĊĊŦŦĠĊŦĊĠĊĊĀĠĊŦŦĀĊĊĀĊŦŦīĠĠĠĊĀŦŦĊĀĠĊŤĊŦĊĀĊĊ
                                                                                                                                                                                                                                                                                                                                          CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                    CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCGGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                               ccaagarcaccrcgagaaagrcaaggcacrrcgaggagaaaarrgcgcccrcrgaaagagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCGGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATGTAG 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAAACTCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1447;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         USE
                                                                                      3215
                                                                                                                   480
                                                                                                                                              3155
                                                                                                                                                                           420
                                                                                                                                                                                                       3095
                                                                                                                                                                                                                                                                3035
                                                                                                                                                                                                                                                                                                                        2975
                                                                                                                                                                                                                                                                                                                                                                                 2915
                                                                                                                                                                                                                                                                                                                                                                                                                                         2855
                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                               US-09-845-416-32
                                                                                                                                                          밁
                                                                                                                                                                                   Ş
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
Sequence 32, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND
TITLE OF INVENTION: THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                    1441
                                                                                                                                                                                                                4116
                                                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                                                         4056
                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                   3996
                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                          3936
                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                 AATGTAG
                                                                                                                                                       AATGTAG
                                                                                                                                                                                                                        AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC
                                                                                                                                                                                                               AATGGGCTACCTGCCAGTGCAGACTGTCTT/
                                                                                                                                                                                                                                                                CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                 CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                          AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                                                                                                                                                    CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                        AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCATCCTTTGGGGGGAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCGCAGGCTGGGCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGAGGATCCGTGTCTGTTTTAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAAGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTGGTCCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acteceaagactecagaagecettingetingeatettingeetigageetigieteagetege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                       4182
                                                                                                                                                                                 1447
                                                                                                                                                                                                        4175
                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                4115
                                                                                                                                                                                                                                                                                             1380
                                                                                                                                                                                                                                                                                                                         4055
                                                                                                                                                                                                                                                                                                                                                                                   3995
                                                                                                                                                                                                                                                                                                                                                                                                                                          3935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3335
```

Ś 밁 Ś Дb Ş 뫄 Ş 문 Ş 밁 Ş 뫄 δ 片 Ś 밁 Ś

```
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 32
LENGTH: 4414
                                                                                                                ঠ
                                                                                                                                              밁
                                                                                                                                                                  ð
                                                                                                                                                                                         밁
                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                         5
                S
                                       В
                                                                 ક
                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-845-416-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1447; Conservative C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Homo sapiens
3538
                                               3478
                                                                                                3418
                                                                                                                                               3358
                                                                                                                                                                                                 3298
                                                                                                                                                                                                                                                 3238
                                                                                                                                                                                                                                                                                                   3178
                                                                                                                                                                                                                                                                                                                                                     3118
                                                                                                                                                                                                                                                                                                                                                                                                      3058
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2758 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                      661
                                                                                                                                                                         601
                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                              301
                      781
                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                              ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                     CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                       CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAGATCACCTCGAGAAAAGTCAAGGCACTTCGAGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACTCTCT
                                                             CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                               TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCAACGT
                                                                                                                                                               TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                   CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                   CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                     GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
               AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                 ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          %; Score 1447; |
%; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                       840
                                                                       780
                                                                                                                      720
                                                                                                                                               3417
                                                                                                                                                                         660
                                                                                                                                                                                                  3357
                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                   3297
                                                                                                                                                                                                                                                                                                   3237
                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                      3117
                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
3597
                                               3537
                                                                                                3477
                                                                                                                                                                                                                                                                                                                                                     3177
                                                                                                                                                                                                                                                                                                                                                                                                                                                       3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2817
                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
Sequence 31, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A I
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFWARE: PATENTIN Ver. 2.1
SEQ ID NO 31
                                                                                                                        ; LENGTH: 4476
; TYPE: DNA
; ORGANISM: Homo s
US-09-845-416-31
밁
                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 8
US-09-845-416-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                           Query Match
Best Local Similarity
Matches 1447; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3598
 2820 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                GACCCTTGAAAGACTCCAGGAACTTCAAGAGGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATGTAG 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGGTGTGGCCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGCAGGCTGGGCCTTCCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                             Conservative
                                                         100.0%; Score 1447;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                    A DYSTROPHY MINIGENE AND
                                                                                          DB
                                                                                          10;
                                                           0;
                                                              Indels
                                                                                          Length
                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
 2879
                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3837
                                                              0
```

ργ	3900 CATGGTGTGGCTGCCGTCCTGCACAGGTGGCTGCAGAAACTGCCAAGCATCAGGC 1140 3900 CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 3959
. Qy Db	840
Ф	780
ον Φ	20 01
Qy Db	60 -0
Оу	00
ÜS-0	40
 <u>ω</u>	80 1
	20
~ ~ ~ ~	41 ACI
	81 CTACCAGTCT
RES US-	21 CTAC
D Qy	61 80
dd Qy	01 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTGA
do Vo	241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
Qy dd	181 CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCAFTCAGCTCTCACC 240
Db Cy	121 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
Qy	90 0

음 성 Ъ Ş В Ş 뫄 Ş В δ 밁 S 뫄 δ g Ś 밁 δ Дb S 8 Ş В Ş В Ş DЬ ş 맑 8 В δ 밁 8 밁 δ

```
Sequence 30, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
ITITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
ITITLE OF INVENTION: THEREOF
ILLE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 30
            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            岁
                                                                                                                                                                                                                                                                                                                                                                                            Duery Match 100.0%; Score 1447; set Local Similarity 100.0%; Pred. No. 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SULT 9
3-09-845-416-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 4498
TYPE: DNA
ORGANISM: Homo sapiens
09-845-416-30
            3142
                                                                        3082
                                                                                                                                          3022
                                                                                                                                                                                                         2962
                                                                                                                                                                                                                                                                       2902
                                                                                                                                                                                                                                                                                                                        301 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                         241
                                                                                                                                                                                                                                      121
                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4080
                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                              GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                           CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240
CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                            | CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                           GTÁTAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 3141
                                                                                                                                                                                           CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATGTAG 4266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  aargggcraccrgccagrecagacrgrcrragagggggacaacarggaaactcccgacac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGGACAC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĊŦŦŦĠĊĊĂĂĠĠŦĀĊŦĂĀĀĀĀĀĀĀĀŤŦŦĊĠĀĀĊĊĀĀĀĀĠĠŦĀŤŦŦŦĠĊĠĀĀĠĊĀŦĊĊĊĠĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTAATTATGĀCĀTĊTĠĊĊĀĀĀĠĊŦĠĊŦŦŦŦŦŦŦŦĊŦĠĠŦĊĠĀĠŦŦĠĊĀĀĀĀĠĠĊĊĀŦĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1447
                                                                                                                                                                                                                                                                                                                                                                                                                             DB 10;
                                                                                                                                                                                                                                                                                                                                                                                              ۰,
                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                           Length 4498;
                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                             3021
                                                                                                                                                                                                                                                           2961
                                                                                                                                                                                                                                                                                                                          2901
                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4079
```

```
4222
                                                                                                                                4102
                                                                                                                                                                 1261
                                                                                                                                                                                                  4042
                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                  3982
                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                    3922
                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                     CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCCTTCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                   CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                    CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                       CATGGTGTGGCCTGCCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                 TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCCTTATAGGACTGCCATGAA
                 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCGACAC 1440
                                                                               CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                  CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                  CAMATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCAACGT
4281
                                                                                               1380
                                                                                                                                4161
                                                                                                                                                                                                  4101
                                                                                                                                                                                                                                   1260
                                                                                                                                                                                                                                                                  4041
                                                                                                                                                                                                                                                                                                                                    3981
                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                    3921
                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                 4221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
```

日 S 8 Ś 밁 Ş 밁 S 밁 δ 밁 ঠ 밁 ঠ 밁 8 밁

B & B & B & B & B & B & 8

8 8 8 8 8 8 8

```
APPLICANT: XIAO, XIAO

APPLICANT: XIAO, XIAO

ITITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT FILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver: 2.1

SEQ ID NO 29

LENGTH: 4825

TYPE: DNA

COGANISM: Homo sapiens

US-09-845-416-29
  S
                                   밁
                                                         δ
                                                                                       밁
                                                                                                         S
                                                                                                                                          밁
                                                                                                                                                              S
                                                                                                                                                                                      밁
                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
US-09-845-416-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%; Score 1447; Best Local Similarity 100.0%; Pred. No. 0; Matches 1447; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 29, Application US/09845416 Publication No. US20030171312A1
                                     3709
                                                                                         3649
                                                                                                                                                                                               3529
                                                                                                                                                                                                                                                                                                      3409
                                                                                                                                                                                                                                                                                                                                                                                                             3289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441 AATGTAG 1447
                                                                                                                481
         601
                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                   CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660
                                                                                                     CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540
                                                                                                                                                         CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480
                                                                                                                                                                                               CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                      GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                   GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                                                                                                                                                                                                                                                        CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                        CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 4825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                         3708
                                                                                                                                             3648
                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                      3468
                                                                                                                                                                                                                                                                                                                                                                                                             3348
                                                                                                                                                                                               3588
                                                                                                                                                                                                                                                   3528
                                                                                                                                                                                                                                                                                                                                                          3408
                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
```

0;

```
RESULT 11

US-09-845-416-35

Sequence 35, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

ITILE OF INVENTION: DNA SEQUENCE ENCODING A I

TITLE OF INVENTION: THEREOF

FILE REFERENCE: DES1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT FILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATGTAG 1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAAACTCCCGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĊŦŦŦĠĊĊĀĀĠĠŦĀĊŦĀĀĀĀĀĀĀĀŦŦŦŦĊĠĀĀĊĊĀĀĀĀĠĠŦĀŦŤŤŦĠĊĠĀĀĠĊĀŦĊĊĊĊĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a Artic a craric con regressa a ratric a crac con carca con a carc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTAĀTTĀTĠĀĊĀTĊĪĠĊĊĀĀĀĠĊĪĠĊĪŤŤŤŤŤŤČŤĠĠŤĊĠĀĠŤŤĠĊĀĀĀĀĠĠĊĊĀŤĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTAATTAIGACATCTGCCAAAGCTGCTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ĊĀĀĀTĠŦĀĀĊĀŦĊŦĠĊĀĀĀĠĀĠŦĠŦĊĊĀĀŦĊĀŦŦĠĠĀŦŦĊĀĠĠŦĀĊĀĠĠĀĠŦĊŦĀĀĀĠĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  carderdreecrecercerecadadreserrecreces de al conservado de conservado de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     récarcerrideses castalacarrelas calendas recesas de la construcción de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAĀTĀĀGĒCĀGĀGĀTCGĀĀĢCĒĢĒCĒTĒTTĒCTĀGĀCTGGĀTGĀGĀCTGGĀĀČĒCĀĢTĒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGAGACTGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĠĠĀĀĠĀĊĀĀĠŦĀĊĀĠĀŦĀĊĊŦŦŦŦĊĀĀĠĊĀĀĠŦĠĠĊĀĀĠŦŦĊĀĀĊĀĠĠĀŦŤŦŦĠŦĠĀĊĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAACACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                               DYSTROPHY
                                                                                                                                                                                                                                                                                                                                                                                                                                                     MINIGENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                             В
                                                                                                               5
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; ORGANISM: HO
US-09-845-416-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; SEQ ID NO 35
; LENGTH: 4848
; TYPE: DNA
ORGANISM: Homo :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1447; Conserv
                                             4092
                                                                                                                                                                                                                          4032
                                                                                                                                                                                                                                                                                                                                                                                                                 3972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3912
                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
deckadectidedectectretedardartetarechadirtechadacadetidedetedadet
                                                             GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                               GGAAGACAAGTACAGATACCTTTTCAAGCAAGTTGGCAAGTTCAACAGGATTTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         μ
                                                                                                                                                                                                                                                                                                                                                                              AGGGAGGATCCGTGTCTTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGGAGGATCCCTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cccrcrcrecedatarererereaacrecereaarerrarearacedaceaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAGAGCACAACAATTTGGTCAACGT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TĠĊĊTTĠĠŔĊĊŔĠĊŔĊŔŔĊĊŤĊŖŔĠĊŔŔĸĸŦĠŔĊĊŔĠĊĊĊŔŦĠĠŔŦŔŦĊĊŤĠĊŔĠŔŤŔŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a Crocco a de de la compara de
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĊŦĀĊĊĀĠŦĊŦŦŦŔĠĊŦĠĀĊĊŦĠĀĀŦĀĀŤĠŦĊĀĠĀŦŤĊŤĊĀĠĊŤŦĀŦĀĠĠĀĊŤĠĊĊĀŤĠĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACTATATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĊĠĀĠĠĀĊĊĠĀĠŦĊĀĠĠĊĀĠĊŦĠĊĀŦĠĀĀĠĊĊĊĀĊĀĠĠĠĀĊŦŦŦĠĠŦĊĊĀĠĊĀŦĊŦĊĀĠĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cereadechica de la contra del la contra de la contra de la contra del la cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ccaagarcaccrccaagaaagrcaaggcacrrcgaggagaaarrgcgccrcrcaaaagagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rccacerererekadestrecereseasasasasecareresecaadeaaseree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1447;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           .,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
```

3611 480

420 3551 3491

3431

3371 240

3311 120 3251 60

Ş

4151

960

4091

900

4031

3971

3911

3851 660 3791 600 3731 540 3671

유

유 성 Вb 5 В Ş 멍 Ś 밁 Ś dd Ş 밁 S 밁 δ В Ş B Ś 밁 Ś 밁 Ş

Qy 121 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180	61 CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT	QY 1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG 60	Query Match 100.0%; Score 1447; DB 10; Length 4966; Best Local Similarity 100.0%; Pred. No. 0; Matches 1447; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		PRIOR FILING DATE: 2000-04-28 ; NUMBER OF SEQ ID NOS: 36 ; SOFTWARE: Patentin Ver. 2.1 : SEQ ID NO 28	FILE REFERENCE: DE1142 ; FILE REFERENCE: DE1142 ; CURRENT APPLICATION NUMBER: US/09/845,416 ; CURRENT FILING DATE: 2001-04-30 ; CURRENT FILING DATE: 2001-04-30	; GENERAL INFORMATION: DIA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE	RESULT 12 US-09-845-416-28 15-09-845-416-28 15-09-845-416-28 15-09-845-416-28 15-09-845-416-28	Db 4632 AATGTAG 4638	1381 AATGGGC 4572 AATGGGCC	1321 CITIECTANGETACIANAMANI I ICHANCHAMANGIAII III GUGANGCA ICCCG	1261 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA	1201 CTTTPATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA	1111 CAMATIGIANCAICIGEANAGNOIGICEANICAITIGENII CAGGIACAGGNOICLIAMAGCA	1001 CALESTIGNET GENERAL CONTROL SERVICE SECTION AND THE SECTION OF THE SECTION O	1021 TARTANGCCAGAGATCGAAGCCCCCCCCCTAGACTGGAAGCCTGGAACCCCAGTC 4212 TAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC	961 TGCATCCTTTGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA	
- da		B &		Qy db	Qy Db	Qy Db	Qy	Qy Db	Qy ob	Qy dd	Qy Db	og Qy	ρ <i>δ</i>	Db Qy	Qy dd	Qy Db	Qy Oy	da da
1201 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260	1 CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGGAGTCTAAAGCA	4390 CATGGTGTGCCCGTCCTGCACAAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 4449	TRATTAGGCCAGAGATGGAAGGGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC	1 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA	901 GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT 960 	841 GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA 900 	781 AGGGAGGATCCGTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT 840 	721 CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 780	661 TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT 720 	601 TGCCTTGGACCAGCACCACCAAGCAAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660 	541 ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGCAGCTGCATGTGA 600	481 CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540	421 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480	361 CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA	301 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360	241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300	181 CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240	3430 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 3489

```
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DAN SEQUENCE ENCODIN
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,41
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1447; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 36
LENGTH: 5060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 36, Application US/09845416 Publication No. US20030171312A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Homo sapiens
-09-845-416-36
                                                 4064
                                                                                                            4004
                                                                                                                                                                         3944
                                                                                                                                                                                                                                     3884
                                                                                                                                                                                                                                                                                                3824
                                                                                                                                                                                                                                                                                                                                                          3764
                                                                                                                                                                                                                                                                                                                                                                                                                      3704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3404
                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                   721
                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                              661
                                                                                                                                          601
                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                        CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCCGATCTCCTCATTGACTCTCT
CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                    TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                     CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540
                                                                                                                                                                                                                                                                                                                CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                           GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                            TGCCTTGGACCAGCAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                           CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCCTCTGAAAGAGAA
                                                                                                                                         TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                       ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                    CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 1447; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ENCODING A DYSTROPHY MINIGENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 5060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USE
                                                 4123
                                                                              720
                                                                                                            4063
                                                                                                                                          660
                                                                                                                                                                         4003
                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                          3823
                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                        3763
                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                  3943
                                                                                                                                                                                                                                                                                               3883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3463
                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                       US-09-845-416-27
; Sequence 27, Application US/09845416
; Publication No. US20030171312A1
; GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
; TITLE OF INVENTION: DNA SEQUENCE ENCODING A IITLE OF INVENTION: THEREOF
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: DE1142
; CURRENT APPLICATION NUMBER: US/09/845,416
; CURRENT FILING DATE: 2001-04-30
; PRIOR APPLICATION NUMBER: 60/200,777
; PRIOR APPLICATION NUMBER: 60/200,777
; PRIOR FILING DATE: 2000-04-28
; NUMBER OF SEQ ID NOS: 36
; SOFTMARE: Patentin Ver. 2.1
; SEQ ID NO 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                               US-09-845-416-27
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
   Query Match
                                            LENGTH: 5149
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                          4844
                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                          AATGTAG
                                                                                                                                                                                                                                                                                                                                                                                                     AATGTAG 1447
                                                                                                                                                                                                                                                                                                                                                                          4850
   100.0%;
   Score 1447;
```

S 밁 á

밁 5 밁 5 밁 5 吊 र् 닭 δ 밁

BB 10;

Length 5149;

δ 밁

В

문

Ş 밁 S 밁

ঠ

```
4124 CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                       AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAAACTCCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGAGGATCCGTGTCCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGGTGTGCCTGCCCGTCCTGCACAGAGTGGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
Þ
     DYSTROPHY
     MINIGENE
                                                                                                                                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4183
                                                                                                                                                                                                                                                                                                                                                                    4843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
```

		1
	021	Ş
	961 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020 	음 성
	901 GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT 960 	유
	841 GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA 900 	유 성
	781 AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT 840 	음 성
	721 CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 780 	β Q
	661 TAATIGITTGACCACTATTTAIGACCGCCTGGAGCAAGAGCACAACAATTTGGICAACGI 720 	유 성
	601 TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660 	유 왕
	541 ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600 	유
	481 CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540 	g 8
Sea1 Job	421 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480 	용 성
Db .	361 CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGCGATCTCGCCAAACAAA	β δ
ο Β <i>τ</i>	301 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360 	유
O B 1	241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300 	유 성
O D 1	181 CGTGAGCCACGTCAATGACCTTGCCCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240	유 성
Q B #	121 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180 	g 8
S B 7	61 CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT 120	용 성
OV D	1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG 60	유 성
o p	Best Local Similarity 100.0%; Pred. No. 0; Matches 1447; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	Ве Ма

Дb	δ	Db	γQ	망	δ	Дb	δ	망	γŞ	Дb	γQ	Db	γQ	Ъ
4933 AATGTAG 4939	1441 AATGTAG 1447	4873 ANTGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC 4932	1381 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAAACTCCCCGACAC 1440	4813 CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 4872	1321 CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380	4753 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 4812	1261 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320	4693 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 4752	1201 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260	4633 CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 4692	1141 CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200	4573 CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 4632	1081 CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 1140	4513 TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 4572

Search completed: March 2, 2005, 20:00:57
Job time: 870.096 secs

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
           იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
           Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
         1432
1426.6
1259.6
1259.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1437.6
                                                                                                .144
1144
114436
114436
114436
114436
114444
11444
11444
11444
11446
11446
11446
11446
11446
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
11466
114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 gacccttgaaagactccagg.....aaactcccgacacaatgtag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-845-416-14_COPY_2000_3446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              March
         Issued_Patents NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
         2005, 04:16:40; Search time 251.835 Seconds (without alignments) 9401.765 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BB
                                              US-09-607-875A-1
US-09-949-016-2813
US-09-949-016-2813
US-09-949-016-2814
US-09-949-016-2815
US-09-949-016-2815
US-09-949-016-2816
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2822
US-09-949-016-2822
US-09-949-016-2822
US-09-949-016-2823
US-09-949-016-2823
US-09-949-016-2825
US-09-949-016-2825
US-09-949-016-2806
US-09-949-016-2806
US-09-949-016-2806
US-09-949-016-2808
US-09-949-016-2808
US-09-949-016-2808
US-09-949-016-2808
US-09-949-016-2808
US-09-949-016-2808
US-09-949-016-2809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
Sequence 1, Appli
Sequence 2831, Ap
Sequence 2812, Ap
Sequence 2813, Ap
Sequence 2813, Ap
Sequence 2814, Ap
Sequence 2816, Ap
Sequence 2816, Ap
Sequence 2817, Ap
Sequence 2817, Ap
Sequence 2819, Ap
Sequence 2821, Ap
Sequence 2822, Ap
Sequence 2823, Ap
Sequence 2824, Ap
Sequence 2824, Ap
Sequence 2825, Ap
Sequence 2804, Ap
Sequence 2805, Ap
Sequence 2806, Ap
Sequence 2807, Ap
Sequence 2808, Ap
Sequence 2809, Ap
Sequence 60, Appl
Sequence 60, Appl
Sequence 60, Appl
Sequence 60, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Description
```

1001.6 69.2 4556 4 US-09-949-016-2827 1001.6 69.2 4556 4 US-09-949-016-2828 1001.6 69.2 4556 4 US-09-949-016-2828 1001.6 69.2 4556 4 US-09-949-016-2829 1001.6 69.2 4556 4 US-09-949-016-2830 99.6 69.0 1571 4 US-09-949-016-2821 747 51.6 10320 4 US-09-949-016-2821 747 51.6 10320 4 US-09-949-016-276 46.8 349.8 4 US-09-949-016-1359 668.4 46.2 3915 4 US-09-949-016-14563 14.0 151295 4 US-09-949-016-14568 203 14.0 151295 4 US-09-949-016-14568 14.0 151295 4 US-09-949-016-14568 14.0 151295 4 US-09-949-016-14570 14.0 1512	. 6 69.2 4556 4 US-03 . 6 69.2 1571 4 US-03 . 7 10.0 10.0 10.0 10.0 10.0 10.0 10.0 1	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	
4556 4 US-09 4556 4 US-09 4556 4 US-09 1571 4 US-09 10320 4 US-09 10320 4 US-09 3499 4 US-09 3499 4 US-09 3915 4 US-09 151295 4 US-09	4556 4 US-09-949-016-2828 4556 4 US-09-949-016-2828 4556 4 US-09-949-016-2829 4556 4 US-09-949-016-2830 1571 4 US-09-949-016-2831 6045 4 US-09-91-501B-7 10320 4 US-09-91-501B-7 10320 4 US-09-91-501B-9 3499 4 US-09-91-501B-9 3499 4 US-09-949-016-276 3499 4 US-09-949-016-1456 3498 4 US-09-949-016-14570 151295 4 US-09-949-016-14571 151295 4 US-09-949-016-14573 151295 4 US-09-949-016-14573	203	203	203	203	203	203	203	668.4	677.6	679.2	747	747	999	1001.6	1001.6	1001.6	1001.6	H C C H . C
4 US-020	4 US-09-949-016-2828 4 US-09-949-016-2828 4 US-09-949-016-2830 4 US-09-949-016-2831 4 US-09-949-016-2821 4 US-09-91-501B-7 4 US-09-91-501B-7 4 US-09-91-501B-9 4 US-09-91-501B-9 4 US-09-949-016-276 4 US-09-949-016-14568 4 US-09-949-016-14568 4 US-09-949-016-14569 4 US-09-949-016-14571 4 US-09-949-016-14571 4 US-09-949-016-14571 4 US-09-949-016-14572 4 US-09-949-016-14573		14.0	14.0	14.0	14.0	14.0	14.0	46.2	46.8	46.9	51.6	51.6	69.0	69.2	69.2	69.2	69.2	
	US-09-949-016-2828 US-09-949-016-2828 US-09-949-016-2830 US-09-949-016-2830 US-09-949-016-2831 US-09-949-016-2821 US-09-949-016-276 US-09-949-016-1359 US-09-949-016-14568 US-09-949-016-14568 US-09-949-016-14569 US-09-949-016-14571 US-09-949-016-14571 US-09-949-016-14572 US-09-949-016-14573	393753	151295	151295	151295	151295	151295	92387	3915	3498	3499	10320	6045	1571	4556	4556	4556	4556	
US-09-949-016-2828 US-09-949-016-2828 US-09-949-016-2829 US-09-949-016-2830 US-09-949-016-2821 US-09-949-016-2821 US-09-949-016-1359 US-09-949-016-14563 US-09-949-016-14568 US-09-949-016-14569 US-09-949-016-14570 US-09-949-016-14571 US-09-949-016-14571		4	4	4	4	4	4	4	4	4	4.	4.	4.	4	4	4	4	4	
	Sequence	US-09-949-016-14573	US-09-949-016-14572	US-09-949-016-14571	-09	US-09-949-016-14569	US-09-949-016-14568	US-09-949-016-14563	US-09-976-594-93	US-09-949-016-1359	US-09-949-016-276	US-09-091-501B-9	US-09-091-501B-7	US-09-949-016-2821	US-09-949-016-2830	US-09-949-016-2829	-03	US-09-949-016-2827	

ALIGNMENTS

RESULT 1 US-09-687-875A-1

US/09687875A

PEI

Sequence 1, Application Patent No. 6544786 GENERAL INFORMATION:

```
밁
                                                                                                     S
                                                                                                                                                       밁
                                                                                                                                                                                      Ş
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-687-875A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 5952

TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
FEATURE:
NAME/KEY: misc feature
LOCATION: (2897).. (2898)
OTHER INFORMATION: S4 junction site
NAME/KEY: misc feature
LOCATION: (3198).. (3199)
OTHER INFORMATION: S2 junction site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Sim Matches 1440;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Xiao, Xiao
APPLICANT: Liu, Paul
TITLE OF INVENTION: METHOD AND VECTOR FOR PRODUCING AND TRANSFERRING TRANS-SPLICED
FILE REFERENCE: 00792
FILE REFERENCE: 00792
FILE REFERENCE: 00792
FILE REFERENCE: 00792
FILE REFERENCE: 00793
FILE REFERENCE: 00793

CURRENT FILING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: 60/158,868
PRIOR APPLICATION NUMBER: 60/158,868
PRIOR FILING DATE: 1999-10-15
NUMBER OF SEQ ID NOS: 22

SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                          3747
                                                                                                                                                                                                                                                                                                                                3687
                                                                                                            181
                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                        سر
                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                       CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACTCTCT 120
GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                          CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240
                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT 3806
                                                                                                                                                                                                                                                                                                                                GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                        GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                         CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                  CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCCTCTGAAAGAGAA 180
                                                                   CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   99.4%; Score 1437.6;
99.7%; Pred. No. 0;
sive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                   4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 5952;
                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                             300
                                                                                                                                                         3866
                                                                                                                                                                                                                                                                                                                                  3746
                                                                     3926
                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380
                                                                                                                                                                                                 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                                                                           CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                            CTTTÄATTÄTGĀCĀTCTGĊCĀĀĀGCTGCTTTTTTTTCTGGTCGĀGTTGCĀĀĀĀĠĠĊĊĀTĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                       ĊAĀĀTĠŦĀĀĊĀŦĊŦĠĊĀĀĀĠĀĠŦĠŦĊĊĀĀŦĊĀŦŦĠĠĀŦŦĊĀĠĠŦĀĊĀĠĠĀĠŦĊŦĀĀĀĠĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    caregreredetectectericine cacada dregene de cadada a crecca a de carea de c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rgcarccrrtggggggcagtaacartgagccaagrgrccggagcrgcrrccaartrgctaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĠĊĠĊĀĠĠĊŤĠĠĠĊĊŤĊĊŦŤĊŦĠĊĀŤĠĀŤŤĊŤĀŤĊĊĀĀĠŤŤĊĊĀĀĠĀĊĀĠŤŤĠĠĠŤĠĀĀĠŤ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĠĠĀĠĀĊĀĀĠĪĀĊĀĠĀĪĀĊĊŦŦŦŦĊĀĀĠĊĀĀĠĪĠĠĊĀĀĠŦŦĊĀĀĊĀĠĠĀŦŦŦŦĠŦĠĀĊĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cecrererisci de de la compara 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TAATTGTTTGACCACTATTTATGACCGCCTGGAGGAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACCAGTCTTTAGCTGACTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĊŦŦŶĊŶŶŶĊĠĊĠŶĊŶĠŶĊĊĠĠĠŶĊĊĊŶĠĠĠĀĠĀĠĀĠĊĊĂŶĊŶĊĠĊĊĂĀĀĊĀĀĀĠŶĠĊĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAAAGAGCCATCTCGCCAAACAAGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĆĠĀĠĀĊĊĠĀĠŦĊĀĠĠĊĀĠĊŦĠĊĀŦĠĀĀĠĊĊĊĀĊĀĠĠĠĀĊŦŦŦĠĠŦĊĊĀĠĊĀŦĊŦĊĀĠĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                        5066
                                                                                                                                                                  5006
                                                                                                                                                                                                                                                                                            4946
                                                                                                                                                                                                                                                                                                                                                                                                                          4886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
US-09-949-016-2831
Sequence 2831, Application US/09949016
Patent NO. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR PILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 50/2011,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTESQ FOR Windows Version 4.0
TYPE: DNA
I DNGANISM: Human
US-09-949-016-2831
                                                         Ś
                                                                                                                          밁
                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches 1439;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                   1087
                                                                                                                                                                                                                                                    1027
                                                         481
                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                              967
                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                           CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480
                                                                                                                                                                                                                     CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCCAGCATCTCAGCA 1026
                                                                                                                                                                                                                                                                                                                                                                                               CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ccaagarcaccrccaagaaagrcaaggcacrrcgaggagaaarrrgcgcccrcrgaaagagaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATG 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCCGTTAC 5126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1436; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ა
•
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 5627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SES
```

멓 Ş В Ş 문 Ş 8 δ B Ś В Ş 문 Ş 밁 δ 밁 δ 뫄 δ ф Ş 맑 Ş B Ş В Ş 밁 δ 밁 S 밁 Ś 밁 Ś 맑

1321

1261 4887 1201 4827 1141

1086

360 966 300

846

786

120 726 60

0

906

240

1081 4707 1021 4647

4587

901

4527

841

4407

4347

661

4227

THEREOF

601

4167

481

4107

421

4047

;•

```
RESULT 3
US-09-949-016-2832
; Sequence 2832, Application US/
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig e
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                             ક
                                                                                                                 음 성
                                                                                                                                                   밁
                                                                                                                                                                       δ
                                                                                                                                                                                               밁
                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                            1807
                                                                              2107
                                                                                                                                        1381
                                                                                                                                                          1987
                                                                                                                                                                            1321
                                                                                                                                                                                                1927
                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                      1867
                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                   1747
                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                          1687
                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                1627
                                                                                                                                                                                                                                                                                                                                                                                                                                      1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                            TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTG
                                                                                                 AATG 1444
                                                                                                                                                                                                                                                                                                                   CATGGTGTGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                       CATGGTGTGGCTGCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                         TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                               AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC
                                                                                                                                                                    CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                          AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                         TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                    AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGTTAC
                                                                                                                                                           CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                              US/09949016
  et
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1206
                                                                                                                                         1440
                                                                                                                                                                                                 1986
                                                                                                                                                                                                                    1320
                                                                                                                                                                                                                                        1926
                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                              1866
                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                    1806
                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                          1746
                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                 1686
                                                                                                                                                                                                                                                                                                                                                                                                                                       1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1326
                                                                                                                                                                             1380
                                                                                                                     2106
                                                                                                                                                           2046
                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                              밁
                                                δ
                                                                     문
                                                                                   S
                                                                                                          문
                                                                                                                           8
                                                                                                                                                 닭
                                                                                                                                                               Ş
                                                                                                                                                                                       밁
                                                                                                                                                                                                      S
                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
```

```
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-10-09
PRIOR FI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 99.2%;
Best Local Similarity 99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches 1439; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOFFILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1087
                                                                                                                                                                                                                                                                                                                                               1207
                                                                                                                                                                                                                    1267
                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              667
                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGACGAAC
                                                                                          ACTCCGAAGACTGCAGAAGGCCCTTTGGTTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGAGCCACGTCAATGACCTTGCCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                        TGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                               ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                        TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 1436; Di
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 5627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                       1386
                                                                                                                                                                 720
                                                                                                                                                                                                                           1326
                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                         780
```

2240

60 0

2300

300 2420

2480

2360

240

```
Sequence 2812, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER

TITLE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER: FASTENCE OF SEQ ID NOS: 207012

SOUTHARE: FASTESEQ for Windows Version 4.0

LENGTH: 7109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 4
US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                           TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTG 2110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCGGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCCGACAC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATG 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĊŦŦŦĀĀŦŦĀŦĠĀĊĀŦĊŦĠĊĊĀĀĀĠĊŦĠĊŦŦŦŦŦŦŦŦĊŦĠĠŦĊĠĀĠŦŦĠĊĀĀĀĀĠĠĊĊĀŦĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cardererección de construcción de la construcción d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCAGGCTGGGCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAAGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                              THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                ş
                                                                            뫄
                                                                                                                    á
                                                                                                                                                                뮍
                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Human
US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 99.2
Best Local Similarity 99.7
Matches 1439; Conservative
                                                                                                                                                                3021
                                                                                                                                                                                                                                                        2961
                                                                                                                                                                                                                                                                                                                                              2901
                                                                                                                                                                                                                                                                                                                                                                                                                                  2841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2601
                                961
                                                                                                                      901
                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2301
                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          _
TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                 GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                         GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                   GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                      AGGGAGGATCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                               CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                         TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCAACGT 720
                                                                        GCGCAGGCTGGGCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                               AGGGAGGATCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                   CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATTCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCCTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCCTTGGACCAGCAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGAGCCACGTCAATGACCTTGCTCGCCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1436; 1
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             υ
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
```

3140

1020

3080

3020 840

2960

2900 780

2840 660 2780

2720 600

540 2660 480 2600 420 2540 360

Que Bes Mat Qy Db Db	; PR; SO; SEQ.	PR P	RESULT US-09-0 ; Seque ; Pater ; GENEE ; APPI ; TITI	용 성	Å Å	B 8 B	୫ ୫ ୫	B & B	& B & B
OPERTY MATCH 99.2%; Score 1436; DB 4; Length 7109; Best Local Similarity 99.7%; Pred. No. 0; Matches 1439; Conservative 0; Mismatches 5; Indels 0; Gaps 0; Matches 1439; Conservative 0; Mismatches 5; Indels 0; Gaps 0; 1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGAGCTCAAGCTGCG 60	Version 4.0	JE REFERENCE: CL001307 RERNT APPLICATION NUMBER: US/09/949,016 RRENT FILING DATE: 2000-04-14 IOR APPLICATION NUMBER: 60/241,755 IOR FILING DATE: 2000-10-20 IOR APPLICATION NUMBER: 60/237,768 IOR APPLICATION NUMBER: 60/237,768 IOR APPLICATION NUMBER: 60/231,498	SSULT 5 -09-949-016-2813 Sequence 2813, Application US/09949016 Patent No. 6812339 GENERAL INFORMATION: APPLICANT: VENTER, J. Craig et al. APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF	1441 AATG 1444 	1381 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGGACAC 1440	3441 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 3500 1321 CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380	1201 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260	CARGITGTGCCGTCCTGCACAGGTGCCGCTGCAGAACCTGCCAAGCATCAGGC CAAATGTAACATCTGCAAAGAGTGTCCCAATCATTGAATTCAGGTACAGGAGTCTAAAGCA	3141 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 3200 1021 TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 1080
8 8 8 8 8 B	5 B 5 B 5	B & B &	B & B &	Db Qy	Db Qy	P & B &	Qу	D OY	5 5 5
3201 TAATTAAGCCAGAGATCGAAAGCCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 3260 1081 CATGGTGTGGCCTGCCCGTCCTGCACAGAGTGGCTGCAGAACTGCCAAGCCATCAGGC 1140 3261 CATGGTGTGGCCTGCCCGTCCTGCACAGAGTGGCTGCAGAACTGCCAAGCCATCAGGC 1140 3261 CATGGTGTGGCCTGCCCACAGAGTGGCTGCTGCTGCAGAACTGCCAAGCCATCAGGC 3220 1141 CAAATGTAACATCTGCAAAGAGTGTCCAATCATTCAGGTACTAGGAGTCTAAAGCA 1200	901 GUGCAGGCTGGGCCTCTTCCTAGATICLAMATICAMACAGTGGGTGAAGT 3000 GUGCAGGCTGGGTGAAGTTCTATCCAAATTCCAAAATTCCAAGACAGTTGGGTGAAGT 3140 good good good good good good good goo		TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT		ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA	421 CHACHACHACHACHACHANACH I BU ISSANCHAIC CHAMALTANACH 1901 2611 CHACHACHACHACHACHACHACHACHACHACHACHACHAC	CTTTCTTTCCACGTCTGCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA		

```
Sequence 2814, Application US/09949016

; Retent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: MITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; TILE REFERENCE: CLOOL307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-09-08
; PRIOR FILING DATE: 2000-09-08
; PRIOR FILING DATE: 2000-09-09
; NUMBER OF SEQ ID NOS: 207012
; SOFTMARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2814
; LENGTH: 7109
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2814
   Š,
                               밁
                                                      Ş
                                                                                       В
                                                                                                         S
                                                                                                                                              밁
                                                                                                                                                                      δ
                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-09-949-016-2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   吊
                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
Matches 1439
                                                                                       2421
                                                                                                                                               2361
                                                                                                                                                                                                       2301
                                                                                                                                                                                                                                                               2241
                                                                                                                                                                                                                                                                                                                        2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3441
                                                                                                                                                                                                                                                                                                                                                                          99.2%;
cal Similarity 99.7%;
1439; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3381
                                                                                                                  241
                                                                                                                                                                                                                                  121
                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                  GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                           CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                     CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCC
                                           CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                    GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                            CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                   CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                            CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                   CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATG 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGTTAC
                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                           Score 1436; DB 4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                             5.
                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                    2480
                                                                                                                                            2420
                                                                                                                                                                                                                               180
420
                            2540
                                                       360
                                                                                                                                                                       240
                                                                                                                                                                                                   2360
                                                                                                                                                                                                                                                            2300
                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                    2240
                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1380
                                                                                                                                                                                                                                                                                                                                                                            0
            S
                                                            Ş
                                                                                               밁
                                                                                                                        Ś
                                                                                                                                                                            δ
                                        밁
                                                                                                                                                          멂
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮍
                                                                                                                                                          3441
                                                                                                                                                                                                                                                                          3321
                                                                    1381
                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                3261
                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                         3201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
            AATG 1444
                                                            AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCCGACAC
                                                                                                            CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                       AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                            CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                       CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                         CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                       CATGGTGTGGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                CATGGTGTGGCTGCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                         TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCAGGCTGGGCCTCCTTCCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGAGGATCCGTGTCCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATTGTTTGACCACTATTTATGACCGCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACTATATCAACCACGAGACTCAAACTAGCTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                          1380
                                                                                                                                                       3500
                                                                  1440
                                                                                               3560
                                                                                                                                                                                   1320
                                                                                                                                                                                                                3440
                                                                                                                                                                                                                                                                       3380
                                                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                3320
                                                                                                                                                                                                                                                                                                                                                                                        3260
                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                              3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2600
```

V

```
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTMARE: FASCSEQ for Windows Version 4.0
SEQ ID NO 2815
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2815
                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                           ક
                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                     당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                        밁
                                                 ð
                                                                                밁
                                                                                                    S
                                                                                                                              몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 99.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2815, Apparent No. 681233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -09-949-016-2815
                                                                                                                                                                                                                                                     2481
                                                                                                                                                                                                                                                                                                          2421
                                                                                                                                                                                                                                                                                                                                                               2361
                                                                                                                                                                                                                                                                                                                                                                                                                      2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3621
                            2721
                                                                                   2661
                                                                                                                                        2601
                                                                                                                                                                                              2541
                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                        541
                                                                                                             481
                                                                                                                                                                    421
                                                                                                                                                                                                                                                                             301
  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                        GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                                                                                                                                                                                                                                                                              CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG 2240
                                                                                                                                                        CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                              CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCC
                                                                                                                                                                                                                                                                              CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                                                                                                                                                                                                                          GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                 CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                      CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCIG
  TGCCTTGGACCAGCAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660
                                            ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600
                                                                                  CTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                   CTACCAGTCTTTAGCTGAACTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                       CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                     CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                            ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.2%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1436; DB Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <del>ن</del>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                     2720
                                                                                                             540
                                                                                                                                                                    480
                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                     2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2300
                            2780
                                                                                                                                        2660
                                                                                                                                                                                               2600
                                                                                                                                                                                                                                                                                                          2480
                                                                                                                                                                                                                                                                                                                                                               2420
                                                                                                                                                                                                                                                                                                                                                                                                                       2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
US-09-949-016-2816
; Sequence 2816, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT APPLICATION NUMBER: 60/241,755
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                              닭
                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
```

```
TCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATG 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAAGCATCAGGC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGCAGGCTGCGCCTCCTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT 720
                                                                                                                                                                                                                      CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380
                                                                                                                                                                                                                                                                                                                          AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                                                                                                                                            CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT 3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACCAACAATTTGGTCAACGT
                                                                                                                                              AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC 1440
                                                                                                                                                                                            CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                             AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGGAGGATCCGTGTCCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
3624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3080
                                                                                                                                                                                                                                                                                                   3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2840
                                                                                                   3620
                                                                                                                                                                                                  3560
                                                                                                                                                                                                                                                                                                                                                                                                 3440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2900
```

ASSOCIATED
OF DETECTION AND

USES

THEREOF

```
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILLING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILLING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FAST-SEQ for Windows Version 4.
; SEQ ID NO 2816
; ENGTH: 7109
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2816
                                                                    문
                                                                                                         S
                                                                                                                                                              밁
                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1439; Conserv
                                                                                                                                                              2901
                                                                                                                                                                                                                                                            2841
                                                                                                                                                                                                                                                                                                                                                       2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2541
                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2481
                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2181 GÁCCCTTGAAAGÁCTCCGGGAACTTCAAGAGGCCÁCGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGATATGTTTATGATACGGGACGAAC
                                                                                                                                                                    CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                           AGGGAGGATCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                   TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCAACGT 2900
                                                                                                                                                                                                                                                                      TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                                                                                                                                                                                                                                                                                                                                recerregaceaecaecaecreaaecaaaareaecaecearegararecerecaearrar 2840
                                                                                                                                                                                                                                                                                                                                                              TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                             acrecenne action de la contra del l
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĊĠĀĠĠĀĊĊĠĀĠŤĊĀĠĠĊĀĠĊŦĠĊĀŤĠĀĀĠĊĊĊĀĊĀĠĠĀĊŤŦŤĠĠŤĊĊĀĠĊĀŤĊŤĊĀĠĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cercadccacercaareacerrececcaeceraecacerraecacerrececerecece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTTACCACTTTGGGGATTTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ĊĊĀĀĠĀŢĊĀĊĊŢĊĠĀĠĀĀĀĠŢĊĀĀĠĠĊĀĊŢŢĊĠĀĠĠĀĠĀĀĀŢŢĠĊĠĊĊŢĊŢĠĀĀĀĠĀĠĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.2%;
99.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1436;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ت
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                          840
                                                                                                                                          2960
                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2720
                                                                                                                                                                                                                                                                                                                                                                                                                                2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                   3501
1441 AATG 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                   AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAAACTCCCGACAC 1440
                                                    AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCGTTAC 3620
                                                                                                                                                                                                                                                                                                                                                                                 aatgcactateccategregaatatiecactecegactacateaggagagaagatettegaga
                                                                                                                                                                                                                                                                                                                                                                                                                                     AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                                                                                                                                                                                                                                                                    CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CARATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          carderere de construcción de la carda dela carda dela carda de la carda dela carda de la carda de la carda de la carda de la carda dela carda de la carda de la carda de la carda dela car
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĠĊĠĊĀĠĠĊŤĠĠĠĊĊŤĊĊŤŤĊŤĠĊĀŤĠĀŤŤĊŤĀŤĊĊĀĀĀŤŤĊĊĀĀĠĀĊĀĠŤŤĠĠĠŤĠĀĀĠŤ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rdcarccrirdesescaeraacarreasccaasrerecesascrectrectrairrectaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
```

```
US-09-949-016-2817

VS-09-949-016-2817, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NO.S: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SOFTWARE: Human

US-09-949-016-2817

Query Match

Best Local Similarity 99.7%; Pred. No. 0;

Matches 1439; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
```

중 유

```
1081
                                                                      1021
                                                                                                                                                                                     3081
                                                                                                                                                                                                                                                               3021
                                                                                                                                                                                                                                                                                                                                          2961
                                                                                                                                                                                                                                                                                                                                                                                                                   2901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                   961
                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC 1140
                                                                                                                                                                                                                                                                                                                                                                                                               CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                               TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                                                                                                                        GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                          GCGCAGGCTGGGCCTCCTTCTGCATGATTCCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                               GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                         GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                      AGGGAGGATCCGTGTCCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTTATGATACGGGACGAAC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTTGGACCAGCACCACCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT 120
                                                       TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                   TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTC
                                                                                                              TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                     900
                                                                                                              3200
                                                                                                                                                                                     3140
                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                               3080
                                                                                                                                                                                                                                                                                                                                          3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2720
                                   3260
                                                                                                                                                                                                                                                                                                                                                                                                                   2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
```

S

음 성 음 성 음

8 8 8 8 8 8 8 8

Ś

밁

8 8 8 8 8 8 8 8 8 8 8 8 8

문

```
Sequence 2818, Application US/09949016

; Sequence 2818, Application US/09949016

; Patent No. 6812339
; GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION APPLICATION NUMBER: US/09/949,016
; CURRENT APPLICATION NUMBER: 60/241,755
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
; PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR APPLICATION NUMBER: 60/231,498
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                   ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2818
유
                                                           뭐
                                                                                         S
                                                                                                                밁
                                                                                                                                                 Ş
                                                                                                                                                                                      밁
                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 10
US-09-949-016-2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 2818
LENGTH: 7109
                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                        Matches 1439;
                                                                                                                                                                                         2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                         61
                                                                                                                                                                                                         GACCCTTGAAAGACTCCAAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCAAGCTGAGGTGATCAAGGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                         GACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                             CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                            CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320
                               CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATG 1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCGACAC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3624
                                                                                                                                                                                                                                                                     99.2%;
                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                      Score 1436; DB 4;
Pred. No. 0;
0; Mismatches 5
                                                                                                                                                                                                                                                      ٠.
ص
                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DETECTION
                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AND USES THEREOF
                                                                                                                                                         120
                                                              2360
                                                                                                                            2300
                                                                                                                                                                                         2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3440
                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3320
```

PRIOR	\$41 ACTICIONAGACTICOACAMAGGCCCTTTGCTTGAATCTCAACTTTAGAACTCCAATCAA 2720 \$41 ACTICIONAGAACTCCAAAAGGCCCTTTGCTTGAATCTCTTGAGCCTGTCAACTTAGAACTCCCATCAA 2720 \$41 ACTICIONAGAACTCCAAAAGACCCCTTTGCTTGAATCTCTTGAGCCTGTCAACTTCCATCTTGA 600 2721 ACTICIONAGATCCACAAACTCCAAAAATGACCAAACTATCTGAACTTCCTTGAACCTTCAACTTCAACTTCTTGAACCTCCATCTGAACTTCATCTTGAACCTTCTTGAACCTCTCTGAACTTCTTGAACCTTCTTGAACCTCTCTGAACTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTGAACCTTCTTATTATCAACCAAC
Db Db Db Db Db Db Sequence Sequence Facent 1 GENERAL	241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300

유정당

45 45 45 45

Ś 밁 Ś дb Ş 뫄 δ 밁 Ś 뮍 Ś 밁 Ş 뭐 S 뮍 Ş 밁 δ 뭐 δ Ф Ś 밁 S 밁 Ś 밁 Ś

```
9-949-016-2819
9-949-016-2819
quence 2819, Application US/09949016
tent No. 6812339
NERAL INFORMATION:
PPLICANT: VENTER, J. Craig et al.
PILLO OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
ITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEI
ILE REFERENCE: CL001307
URRENT FILING DATE: 2000-04-14
RIOR APPLICATION NUMBER: 60/241,755
RIOR FILING DATE: 2000-10-20
RIOR APPLICATION NUMBER: 60/237,768
RIOR APPLICATION NUMBER: 60/231,498
RIOR APPLICATION NUMBER: 60/231,498
RIOR APPLICATION ONDER: 60/231,498
RIOR FILING DATE: 2000-19-08
RIOR FILING DATE: 2000-09-08
RIOR FILING DATE: 2000-19-08
RIOR PARIOR PARIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Match
Jocal Similarity
JS 1439; Conserve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
VISM: Human
-016-2819
                109
                                                                 421
                                                                                                                  541
                                                                                                                                                                   361
                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGGCT 480
                                                                                                                                                                                                    CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360
                                                                                                     CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGGGCCATCTCGCCCAAACAAGTGCC
                                                                                                                                                                                                                                                                                                         GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                            | CGTGAGCCACGTCAATGACCTTGCCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                              cereaeccacercaareaccrrecreeccaecrraccacrrreeecarreaecrercaec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCGACAC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTG 3624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.2%; Score 1436; DB ilarity 99.7%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
  2660
                                                                                                                                                      420
                                                                                                                                                                                                          2540
                                                                                                     2600
                                                                                                                                                                                                                                                                                                            2480
                                                                                                                                                                                                                                                                                                                                                                                                                 2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
```

```
중 음
RESULT 12
US-09-949-016-2820
; Sequence 2820, Application
; Patent No. 6812339
                                                                                                                                                                       δ
                                                                                                                                                                                         В
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                 밁
                                                                                                                            유 성
                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                               B 8
                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                     중 유
                                                                                 8 8 8
                                                                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                            3621
                                                                                      1381
                                                                                                     3501
                                                                                                                   1321
                                                                                                                                               1261
                                                                                                                                                              3381
                                                                                                                                                                           1201
                                                                                                                                                                                          3321
                                                                                                                                                                                                                       3261
                                                                                                                                                                                                                                                    3201
                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                3141
                                                                                                                                                                                                                                                                                                             3081
                                                                                                                                                                                                                                                                                                                                          3021
                                                                                                                                                                                                                                                                                                                                                                       2961
                                                                                                                                                                                                                                                                                                                                                                                                    2901
                                                                                                                                                                                                                                                                                                                                                                                                                                 2841
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2661
                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                     CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA
                                                                                                                                                                                          CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                         AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                 CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTG
                                                         AATG
                                                                                                                                                                                                                        CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                    TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                           TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                         TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA 1020
                                                                                                                                                                                                                                                                                                             GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                     GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAAGACAGTTGGGTGAAGT
                                                                                  AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGACAC
                                                                                                             CTTTGCCAAGGTACTAAAAAACAAATTTCGAAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                         1444
        US/09949016
                                                                                                                                                                            1260
                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                       1440
                                                                                                                                                1320
                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                 3200
                                                                                                                                                                                                                                                                                                              3140
                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                           3080
                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                       3020
                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                  780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                         3620
                                                                                                     3560
                                                                                                                   1380
                                                                                                                                  3500
                                                                                                                                                                                           3380
                                                                                                                                                                                                                        3320
                                                                                                                                                                                                                                                    3260
                                                                                                                                                                                                                                                                                                                                                                                                    2960
                                                                                                                                                                                                                                                                                                                                                                                                                                 2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2720
                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                           δ
                                                                                                                                    δ
                                                                                                                                                                                밁
                                                                                                                                                                                               Ś
                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                               á
                ક
                                멍
                                              ર્શ
                                                            밁
                                                                                            밁
                                                                                                      ঠ
                                                                                                                      밁
                                                                                                                                                      밁
                                                                                                                                                                 S
                                                                                                                                                                                                                밁
```

```
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER!
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FRatESEQ for Windows Version 4.0
SEQ ID NO 2820
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 1439; Conser
                                                                                                                                                                                                                                                                                                                                                         2481
                                                                                                                                                                                                                                                                                                                                                                                                                   2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2181
   2841
                                                                                                                   2721
                                                                                                                                                                            2661
                                                                                                                                                                                                                                       2601
                                                                                                                                                                                                                                                                                                2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2301
                                                                                                                                             541
                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                  GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                          TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                    ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600
                                                                                                                                                                            CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                            CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                    CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                     CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Score 1436; DE; Pred. No. 0; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>ა</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THEREOF
                                                                                       660
                                                            2840
                                                                                                                     2780
                                                                                                                                                                               2720
                                                                                                                                                                                                           540
                                                                                                                                                                                                                                        2660
                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                 2600
                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                          2540
                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                     2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
    2900
```

```
RESULT 13
US-09-949-016-2822
                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유
                                    FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                      묤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                          GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 2822
                                                                                                                                                                                                                      Sequence 2822, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3141
                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                      TCTG
                                                                                                                                                                                                                                                                                                                                 AATG 1444
                                                                                                                                                                                                                                                                                                                                                                          AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                          AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGTTAC
                                                                                                                                                                                                                                                                                                                                                                                                               CTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATGGTGTGGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTCTCTGCGTGGATATGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAATGTAACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTT
               4.0
                                                                                                                                                                ASSOCIATED
OF DETECTION AND
                                                                                                                                                                USES
                                                                                                                                                                THEREOF
                                                                                                                                                                                                                                                                                                                                                         3620
                                                                                                                                                                                                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                               δ
                                                               밁
                                                                                     S
                                                                                                                                                                          밁
                                                                                                                                                                                                                                                    δ
            멂
                                                                                                                     밁
                                                                                                                                         S
                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            D
G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 7141
                                                                                                                                                                             2901
                                                                                                                                                                                                                                                                                                                                            2721
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2181
                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cal Similarity
1439; Conserv
                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                TAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGT
                             GCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTGAAGT
                                                                                                                                              TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT
                                                                                                                                                                                                                                                                                                                                                          ACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA
                                                                                                                                                                                                                                                                                                                                            ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                 CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                               CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTACTATATCAACCACGAGACTCAAACCAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGAGCCACGTCAATGACCTTGCCTCGCCAGCTTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCCTCTGAAAGAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
                                                                                                                                                                                                     CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1436; D: Pred. No. 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
              3140
                                                                  3080
                                                                                                                        3020
                                                                                                                                                                             2960
                                                                                                                                                                                                                                                                                        2840
                                                                                                                                                                                                                                                                                                                                            2780
                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                  2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2240
                                                                                                                                                840
                                                                                                                                                                                                        780
                                                                                                                                                                                                                                   2900
                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

1141 CAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAAAGCA 1200 	Db Qy	61 CCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCT
	Qy Db	Qy 1 GACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCCAAGCTGCG 60
TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC	ga 43	Query Match 99.2%; Score 1436; DB 4; Length 7141; Best Local Similarity 99.7%; Pred. No. 0; Matches 1439; Conservative 0; Mismatches 5; Indels 0; Gaps 0;
961 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTCTCGGAGCTGCTTCCAATTTGCTAA 1020 	Ş B Q	; LENGTH: 7141 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-2823
	gg Qy	; PRIOR FILING DATE: 2000-09-08 ; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FASLSEQ for Windows Version 4.0 ; SEQ ID NO 2823
	₽ &	; PRIOR FILING DATE: 2000-10-20 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR FILING DATE: 2000-10-03 ; PRIOR APPLICATION NUMBER: 60/231,498
	p Q	
721 CCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 780	Qy	GENERAL INFORMATION: ; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HIMAN DISEASE. METHODS OF DETECTION AND USES THEREOF
H-H	da	RESULT 14 US-09-949-016-2823 ; Sequence 2823, Application US/09949016 ; Patent No. 6812339
601 TGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTAT 660 	Qy	Db 3621 TCTG 3624
541 ACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGA 600	Ωy	
481 CTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAA 540	Qy	3501 CTTTGCCAAGGTACTAAAAAACAAATTTCGAACGCGACACATGGAAACTCCCCGACAC
421 CTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCT 480 	Qу	Db 3441 ANGCACTATCCCATGGTGGAATATTTCGAACCTACATCTAGAAGAAGATCCCGG 1380 OV 1321 CTTTGCCCAAGGTACTAAAAAACAAATTTCGAACCAAAAAGGTATTTTGCGAAGGAATCCCGG 1380
361 CTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGGCCATCTCGCCAAACAAA	da VQ	1201 CITTAMITA UNCATURE CONTROL CONTRO
301 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 360	g Qy	3321 CAMATGTAACATCTGCAAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGAAAAAGAGAGTAAAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGTGTAAAGAGAGAGTGTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAAAAAGAGAGAG
241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGT 300 	Оу	1081 3261
181 CGTGAGCCACGTCAATGACCTTGCCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240	р <i>Q</i>	1021 TANTWAGCCAGAGATCGAAGCGGCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC
121 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAA 180 -	Qy Db	961 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTGCTAA 102

CY 121 CCAGATCACCTCCAGAAAGTCAAGGCACTTCGAGGAAATTGCGCCTCTGAAAGAGA 180 Db 2301 CCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAAAATTGCGCCTCTGAAAGAGA 2360 Oy 181 CGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACC 240 Db 2361 CGTGAGCCACGTCAATGACCTTGCTCCCCAGCTTTACCACTTTGGGCATTCAGCTCTCACC 2420 OY 241 GTATAACCTCAGCACTCTGGAAGACCTTGACCACTTTGGGCATTCAGCTCTCACC 2420 OY 241 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATTGGAAGCTTCTGCAGGTGGCCGT 300 Db 2421 GTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATTGGAAGCTTCTGCAGGTGGCCGT 2480 OY 301 CGAGGACCGAGTCAGGACACTGGAAGACCCACAGGGACTTTGGTCCAGCATCTCAGCA 360 OY 301 CGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCA 2540	Ouery Match Best Local Matches 143 7 12181	TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF INTER OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF CURRENT APPLICATION NUMBER: US/09/949,016 PRIOR APPLICATION NUMBER: 00/041,755 PRIOR FILING DATE: 2000-10-20 PRIOR FILING DATE: 2000-10-33 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR FILING DATE: 2000-09-08 PRIOR FILING DATE: 2000-10-03 PRIOR FILING DATE: 2000-09-08 PRIOR FILING DATE: 2000-19-08 PRIOR FILING DATE: 2000-10-03 PRIO	Qy 1201 CTTTAATTATGACATCTGCCAAAGCTTGCTTTTTTCTGGTCGACAAAGGCCATAA 1260 Db 3381 CTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTCGACATGCAAAAGGCCATAA 1260 Qy 1261 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320 Db 3441 AATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTCGAGA 1320 Qy 1321 CTTTGCCAAGGTACTAAAAAAAAAAAAAAAAAAAAAAAA
5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2	B	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1201 CTTTRACTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 1260 3381 CTTTRATTATGACATCTGCCAAAGCTGCTTTTTTTTCTGGTCGAGTTGCAAAAGGCCATAA 3440 1261 AATGCACTATCCCATGGTGGAATATTTGCACTTCCGACTACATCAGGAGAAGATGTTCGAGA 1320 1261 AATGCACTATCCCATGGTGGAATATTTGCACTTCCGACTACATCAGGAGAAGATGTTCGAGA 1320 1271 CTTTGCCATGGTGGAATATTTGCACTTCCGACTACATCAGGAGAAGATGTTCGAGA 3500 1321 CTTTGCCAAGGTACTAAAAAACAAATTTTCGAACCAAAAGGATATTTTGCGAAGCATGCCCGG 1380 1321 CTTTGCCAAGGTACTAAAAAACAAATTTTCGAACCAAAAGGATATTTTGCGAAGCATCCCCG 1380 1321 CTTTGCCAAGGTACTAAAAAACAAATTTTCGAACCAAAAGGATTTTTGCGAAGCATCCCCG 1380 1321 CTTTGCCAAGGTACTAAAAAACAAATTTTCGAACCAAAAGGATTTTTGCGAAGCATCCCCG 1380 1361 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCCGACAC 1440 1361 AATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCCGTTAC 3620	TAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTC 1	721 CCCTCTCTGGGTGGATATCTGTCTGAACTGGCTGCTGAATGTTATGATACGGGACGAAC 780 2901 CCCTCTCTGGGTGGATATCTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 780 2901 CCCTCTCTGCGTGGATATGTGTTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAAC 2960 781 AGGGAGGATCCGTGTCTGTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCACATTT 840 2961 AGGGAGGATCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCACATTT 840 2961 AGGGAGGATCCGTGTCCTTTTTAAAACTGGCATCATTTCCAACTGTAAAAGCACATTT 3020 841 GGAAGACAAGTACAGATACCTTTTCAAGCAAGTTCAACAGGATTTTGTGACCA 900 3021 GGAAGACAAGTACAGATACCTTTTCAAGCAAGTTCAACAGGATTTTGTGACCA 3080 901 GGCAAGACAAGTACAGTACCTTTCTGCATGATTCTATCCAAAGTTCAACAGGATTTTGTGAACT 3080 901 GGCAAGGCTGGGCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTTGGGTGAAGT 960 3081 GCCAAGGCTGGGCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTTGGGTGAAGT 3140 961 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTTCCGGAACTTCCAATTTGCTAA 1020 3141 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGCCGGAGCTGCTTCCAATTTGCTAA 1020 3141 TGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGCCGGAGCTGCTTCCAATTTGCTAA 3200	

Search co Job time	₽	ફ
me : 256.835 secs	3621 TCTG 3624	1441 AATG 1444
N		
2005,		
2, 2005, 07:49:07		

•			

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Minimum DB seg length: 0
Maximum DB seg length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published Applications NA:*

1: /cgn2 6/ptodata/2/pubpna/US07 PUBCOMB.seq:*

2: /cgn2 6/ptodata/2/pubpna/PCT NEW PUB.seq:*

3: /cgn2 6/ptodata/2/pubpna/US06 NEW PUB.seq:*

4: /cgn2 6/ptodata/2/pubpna/US06 PUBCOMB.seq:*

//mn2 6/ptodata/2/pubpna/US07 PUBCOMB.seq:*

//mn2 6/ptodata/2/pubpna/US07 PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-845-416-12_COPY_2000_3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5394803 seqs, 2962729879 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 aggtcaatactgagtgggaa.....gacaacatggaaactcccga 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                March
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                 /Ggn2_6/ptodata/2/pubpna/US09E_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/Ggn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2, 2005, 06:35:12 ; Search time 897.381 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6/ptodata/2/pubpna/US08_1
6/ptodata/2/pubpna/US09A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (without alignments)
9911.195 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NEW PUB. seq: *
PUBCOMB. seq: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           _PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10789606
printed,
```

and is No. is the number of results predicted by chance to have greater than or equal to the score of the result being pusherived by analysis of the total score distribution.

ശ
9
3
Č
ĸ.
≃

Result

Query

45	44		7	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
88	114		216	324	662.8	746.8	755.6	755.6	785.2	787.6	887	1309.6	1433.4	1434	1438.6	1438.6	1496.8	1496.8	1496.8	1498	1498	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1501	1501
5.9	. 0	1 :	4		44.2							87.2	•	•	•	95.8	99.7	99.7	99.7	99.8	99.8	99.9	•	99.9	٠	9.	99.9	99.9	9.	9	99.9	99.9	100.0	100.0
2247	114		216	324	5106	16531	10302	10302	11096	10705	887	13815	5417	1434	4414	3446	12057	5462	5339	2169	1821	14082	14082	14082	14069	14069	13957	13957	13957	11443	11058	8689	5149	5060
9	1	;	7	17	17	15	17	9	17	17	17	17	17	10	10	10	17	17	17	10	10	17	17	17	17	17	17	9	9	17	10	17	10	10
US-09-960-253-157	-149-/36		-10-149-736-3	US-10-149-736-33	US-10-220-120-157	US-10-101-510-667	US-10-149-736-3		0-149-736-4		-10-149-736-	US-10-149-736-2	US-10-149-736-39	US-09-845-416-15	US-09-845-416-32	US-09-845-416-14	-10-149-736-4	-736-4	US-10-149-736-40	US-09-845-416-4	US-09-845-416-13	-887-	0-172-11	-434	US-10-342-887-434	US-10-172-118-434	US-10-149-736-1	US-09-880-107-2284	US-09-782-378A-22	US-10-149-736-44	US-09-845-416-1	Ļ	-09-845-416-2	US-09-845-416-36
Sequence 157, App	40,	1	ر 4	Sequence 33, Appl	157,	66	3, A	23	4	159	35	2	39,	15	32,	14,	47,	41,	40,	4	13, 7	981,	981,	108,	Sequence 434, App	Sequence 434, App	Sequence 1, Appli	Sequence 2284, Ap	Sequence 22, Appl	Sequence 44, Appl	Sequence 1, Appli	42	N	36,

ALIGNMENTS

```
S
                                                                                                                                                                                                                                                                                                                                           ; LENGTH: 3510
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-12
                                            밁
                                                                                                                                              밁
                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-845-416-12
Sequence 12, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 12
                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 1501; Best Local Similarity 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                   Matches 1501; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DAMA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
                                                 2060 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 2119
                                                                                                                                              2000 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG 2059
121 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                               61 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120
                                                                                                                                                                          1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG 60
                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                 DB 10; Length 3510;
                                                                                                                                                                                                                                                   0; Indels
                                                                                                                                                                                                                                                   0; Gaps
                                                                                                                                                                                                                                                   0;
```

Qy 901 ATTTGGAAGACAAGTACAGATACCTTTCAAGCAAGTCCAAGCAAG	721 2720 781 2780 841 2840	Db 2480 TGCCCTACTATATCAACCACGAACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG Db 2480 TGCCCTACTATATCAACCACGAACAACTTGCTGGGACCATCCCAAAATGACAG Db 2480 TGCCCTACTATATCAACCACGAACAACTTGCTGGGACCATCCCAAAATGACAG OY 541 AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAATTCTCAGCTTATAGGACTGCCA Db 2540 AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAAGATTCTCAGCTTATAGGACTGCCA Db 2540 AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAAGATTCTCAGCTTATAGGACTGCCA OY 601 TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGAGATCTTCTAGGCCTGCAGCTGCAT Db 2600 TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGAGCCTTGCAGCTTGCATCCAGT OY 661 GTGATGCCTTGGAACCTGCAGAAGGCCCTTTGCTTGAGCCTTGAGCCTTCTCAGCTTCAGAT OY 661 GTGATGCCTTGGAACCTGCAAAATGACCAGCCCATGGATATCCTGCAGA OT GAAACTTCCGAAGACTGCAGAAGGCCCTTTGCTTGAGCCTTGAGCCTTCAGATTCCTGCAGA OY 661 GTGATGCCTTGGACCAGCCCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA OY 661 GTGATGCCTTGGACCAGCCAACCTCCAAGCAAAATGACCAGCCCATGGATATCCTGCCAGA OT CATATATATATATATATATATATATCAACAAACTTCAAAAATGACCAGCCCATGGATATCCTGCCAGA OT CATATATATATATATATATATATATATCAAACTTCAAAATGACCAGCCCATGGATATCCTGCCAGAAATTATCCTGCAGAAAATGACCAGCCCATGGATATCCCTGCAGAAATTATCCTGCAGAAATTATCCTGCAGAAATTATCCTGCAGAAATTATCCTGCAGAAATTATCCTTGCAGAAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGAGACCTTGCAGAAATTATCCTTGCAGAAATTATCCTTGCAGAAAATTATCCTGCAAAATTATCCTGCAAAATTATCCTGCAAAAATTATCCTGCAAAAATTATCCTGCAAAAATTATCCTGAAAATTATCCTTGCAGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGCAAAAATTATCCTGAAAATATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCCTGAAAATTATCTGAAAAATTATCCTGAAAATTATCTAAAAAAAA	361 2360 421 2420	Db 2120 TGCGCCAAGCTGAGGTATCAAGGGATCCTGGCAAGCTTACCAGTTTGACT Qy 181 CTCTCCAAGATCACCTCGAGAAAGTCAAGGGATCCTCGAGAGAAATTGCGCCTCTGAAAG Db 2180 CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG Qy 241 AGAACGTGAGCCACGTCAATGACCTTGGCCAGCTTACCACTTTGGGCATTCAGCTCT Db 2240 AGAACGTGAGCCACGTCAATGACCTTGCTCGCAGATGAGCATTCAGCTCT Qy 301 CACCGTATAACCTCAATGACCTTGGAAAACCTTACCACTTTTGGGCATTCAGGTGG Qy 301 CACCGTATAACCTCAATGACCTTGGAAAACCTTAACCACAGATGGAAGCTTCAGGTGG Qy 301 CACCGTATAACCTCAGCACTTGGAAAACCTTAACACCAGATGGAACTTCTCCAGGTGG Db 2300 CACCGTATAACCTCAGCACTTTGGAAAACCTTCAGCTTGGAACACCAGATGGAAGCTTCTCCAGGTGG Db 2300 CACCGTATAACCTCAGCACTTTGGAAAACCTTCAGCTGGAACACCAGATGGAAGCTTCTCCAGGTGG Db 2300 CACCGTATAACCTCAGCACTTTGGAACACCAGATGGAAGCTTCTCCAGGTGG Db 2300 CACCGTATAACCTCAGCACTTTGGAACACCAGATGGAAGCTTCTCCAGGTGG Db 2300 CACCGTATAACCTCAGCACTTTGGAACACCAGATGGAAGCTTCTCCAGGTGG DC ACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAAGCTTCTCCAGGTGG DC ACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAACCTTCTCCAGGTGG DC ACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAACCTTCTCCAGGTGG DC ACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAACCTTCTCCAGGTGG CACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAACCTTCTCCAGGTGG DC ACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAACCTTCTCCAGGTGG CACCGTATAACCTCAGCACTCTTGGAACACCAGATGGAACCTTCTTCAGGTAGACCTTCAGCTTCTTGGAACACCAGATGGAACCTTCTTGGAACACCAGATGGAACCTTCTTGGAACACCAGATGGAACCTTCTTGGAACACCAGATGGAACCTTCTTGGAACACCAGATGAACCTTCTTGGAACACCAGATGAACCTTCAGCTTCTTGGAACACCAGATGAACCTTCTTGGAACACCAGATGAACCTTCTGGAACACCAGATTCAGCTTCTTGGAACACCAGATGAACCTTCTGGAACACCAGATGAACCTTCAGCTTCTTGGAACACCAGATGAACCTTCAGCTTCTTGAACACCTTCTGAACACCAGATGAACCTTCAGAACCTTCAGATGAACCTTCAGCTTCTTGAACACCAGATGAACCTTCAGCTTCTGAACACCAGATGAACCTTCAGATGAACCTTCAGATGAACCTTCAGACCTTCAGACCTTCAGACCTTTAACACCAGATGAACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTAACACCAGATGAACACCAGAACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTCAGACCTTAACACCACACACA
3 960 Db 20 3 2959 Db 20 3 1020 Qy 1 1 1080 Qy 1 1 3079 Db 21 1 1140 Qy 2 3 139 Db 22 3 139 Db 22 3 1260 Qy 3	2719 780 2779 840 2839 900	2539 600 2599 660 2599	2359 Qy 420 Db 2419 Qy 480 Qy Db	T 2179 G 240 G 2239 G 2239 G 2239 D D D D D D D D D D D D D D D D D D D
61 ATGAGACCTTGAAAAACTGCAGGAACTTCCAGGATGAGCTCCGCTGAAAAAATAG 61 ATGAGACCCTTGAAAAACTGCAGAAAAATTGAAACTTCCAGGATGACTGGCAGAGAAAAATAG 61 ATGAGACCCTTGAAAAACTCCAGGAACTTCCAAGAGGCCACGGATGACTGGCAGACGAAAAATAG 61	PatentIn Ver. 2.1 PatentIn Ver. 2.1 10 10 10 10 11 11 11 11 11	RESULT 2 US-09-845-416-10 IS-09-845-416-10 Sequence 10, Application US/09845416 Publication No. US20030171312A1 GEMERAL INFORMATION: APPLICANT: XIAO, XIAO TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777 PRIOR FILING DATE: 2000-04-28	41000	3200 AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAJ 1261 AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTT

```
I: XIAO, XIAO
INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND INVENTION: THEREOF SERNCE: DE1142
PEPLICATION NUMBER: US/09/845,416
PILING DATE: 2001-04-30
PILING DATE: 2000-04-28
PILING DATE: 2000-04-28
PILING DATE: 2000-04-28
PILING DATE: 2000-4-28
PILING DATE: 2000-4-28
PILING DATE: 2001-04-28
PILING DATE: 2000-04-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L6-10
10, Application US/09845416
10, US20030171312A1
NFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n 100.0%; Score 1501; Similarity 100.0%; Pred. No. 0; O; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           : Homo
6-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01 A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            200 AGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTGGATTCAGGTACAGGAGTCTAA 3259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               00 A 3500
CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                      CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360
                                                                                                                                                                                                                                                                                    CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                    AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGGATTCAGCTCT 300
                                                                                                                                              AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGGAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a road a de centro de la comercia del comercia de la comercia del comercia de la comercia del la comercia de la comercia del la comercia de la comercia de la comercia de la comercia de la comercia del la comercia de la comercia de la comercia del la comerc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGACTTTGCCAAGGTACTAAAAAACCAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 10; Length 3531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USE
2380
                                                                                                                                              2320
                                                                                                                                                                                                                                                                                        2260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                  2200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1320
```

```
3401
                1441
                                                                                                                                1321
                                                                                                                                                                                       1261
                                                                                                                                                                                                                       3221
                                                                                                                                                                                                                                                                             3161
                                                                                                                                                                                                                                                                                                                                     3101
                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                3041
                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2441
                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                AAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACAGGGAGGATCCGTGTCCTTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440
                                                                                                                          ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380
                                                                                                                                                                                                                                      AGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                            AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAAACTGCCAAGCATC 1200
                                                                                                                                                                                                                                                                                                                                                      CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCAATGTTTTATGATACGGGAC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTCTACCAGTCTTTAGCTGACCTGAATTAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                     ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                       AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                       CTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACCAACAATTTGGTCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                             3460
                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                        3040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2500
                                                                                                     3400
                                                                                                                                                             3340
                                                                                                                                                                                                                                                                               3220
                                                                                                                                                                                                                                                                                                                                       3160
                                                                                                                                                                                                                                                                                                                                                                                                3100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2440
                            B
                                                      δ
                                                                                                                                            밁
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                       유
                                                                                                                S
                                                                                                                                                                        S
                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                               2768
                                                                                                                                                                                                                                                                 2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3461
                                                                                                                    481
                                                                                                                                                                              421
                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
```

á

밁 δ 밁 δ 밁 S 밁 S 밁 δ 밁 á 밁 S 밁 5 당 ð 밁

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

```
Sequence 9, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION WUMBER: 60/200,777
PRIOR APPLICATION TOMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTING DATE: 2001-04-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Homo
US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 3
US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1501; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 3858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAG 60
TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660
                                                                                AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCCTTATAGGACTGCCA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A 3521
                                                                                                                                                                                        TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                      AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAG
                                                                                                                                                                                                                                                                                                                                                                          CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 3520
                                                                                                                                                            TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           명
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                               2887
                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                      2827
                                                                                                                                                                                                                                                                                                                                                                             2767
                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2467
```

```
RESULT 4
US-09-845-416-6
; Sequence 6, Application US/09845416
; Publication No. US20030171312A1
; GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
; TITLE OF INVENTION: DNA SEQUENCE ENC.
; FILE REFERENCE: DE1142
                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                ДЪ
                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                 Ъ
                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Дδ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 рь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                      3848
                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                         3788
                                                                                                                                                                                                                                                                                                         1441
                                                                                                                                                                                                                                                                                                                                          3728
                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                            3668
                                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                      Þ
                                                                                                                                                                                                                                      Þ
                                                                                                                                                                                                                                                          CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                           ĠAĠĀĊŦŦŦĠĊĊĀĀĠĠŦĀĊŦĀĀĀĀĀĀĀĊĀĀĀŦŦŦĊĠĀĀĊĊĀĀĀĀĠĠŦĀŤŤŦŦĠĊĠĀĀĠĊĀŦĊ
                                                                                                                                                                                                                                                                                                                                               GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                  ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A G G C CA A A T G TA A CAT C T G CA A A G A G T G T C CA A T C G G A T T C A G G T A CA G G A G T C T A A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTCCATGGTGTGGCTGCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGGCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     craaraaraagecagagaregaagecererreeragaergargagaerggaacecee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAGTTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAACAGGAĞGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAACAGGGAGGATCCGTGTCCTGTCTTTDAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          acercerereiges respective de la construcció de l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAAGAGCACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3848
                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENCODING
                                           A DYSTROPHY
                                         MINIGENE
                                                                                                                                                                                                                                                            3847
                                                                                                                                                                                                                                                                                           1500
                                                                                                                                                                                                                                                                                                                             3787
                                                                                                                                                                                                                                                                                                                                                             1440
                                                                                                                                                                                                                                                                                                                                                                                              3727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                         Ś
Ş
                              밁
                                                                                                   밁
                                                                                                                          5
                                                                                                                                                                  Ъ
                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               БР
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
```

```
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEO ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 6
ENGRIH: 3999
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local S
Matches 1501
                                                                   3269
                                                                                                                                                                          3209
                                                                                                                                                                                                                                                                              3149
                                                                                                                                                                                                                                                                                                                                                                                      3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2849
                                                                                                                     781
                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cal Similarity
1501; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H
GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                              ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                      TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCA
                                                                                                                                                                                     TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780
                                                                                                                                                                                                                                                              GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                            GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                     TGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                        TGAAACTCCGAAGAACACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccerceaedacceaercaecaecirecareaaecceacaegaerrreerceaecarcre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cacceraraaccreaecaerereeaadacereaaccaeareeaacerreeaaceeree
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tececcia a de la compara de la
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                    840
                                                                                                                                                         3268
                                                                                                                                                                                                                                                                3208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 3088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                     3148
                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

Query Match 100.0%; Score 1501; DB 10; Length 4182; Best Local Similarity 100.0%; Pred. No. 0; Mismatches 0; Indels 0; Gaps 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	LENGTH: TYPE: DN ORGANISM 09-845-41	PRIOR FILING DATE: 2000-04-28 NUMBER OF SEQ ID NOS: 36 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 2		; GENERAL INFORMATION: ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE ; TITLE OF INVENTION: THEREOF	RESULT 5 US-09-845-416-2 ; Sequence 2, Application US/09845416 ; Publication No. US20030171312A1	3989 A 39	Db 3929 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCG 3988 Oy 1501 A 1501	Db 3869 GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAGGTATTTTGCGAAGCATC 3928 Oy 1441 CCCGAATGGGCTACCTGCCAGTGCAGTCTCTTCGAAGGGGGGACAACATGGAAACTCCCC 1500		3749 AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC	QY 1201 AGGCCAMATG IANCAT C GCAMAGAGTG COAT CAT ITGAT I CAGITACAGGAGT CAA 1200 [111 AGICCA NEGETGIOGE INCLUSIONE CONCENHORM INCLUSIONE INCUI INCLUSIONE INCLUSIONE INCLUSIONE INCLUSIONE INCLUSIONE INCLU	101 CIANIANIANGE CASSANI CHANGA COSCELLI I CELINGA CIGNA INAGRE I GRANCE CELINGA CIGNACE CON CONTROL C	3509 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 35	Db 3449 ACCAGCATCCTTTGGGGGCATABACATTGAAGTTCCAAATTCCAAGTCTGCAAGTTTGGAGGTG 3508	3389 ATTTGGAAGACAAGTACAGTACAGTATTCAAGCAAGTGCAAAGTTCAACAGGATTTTGTG 3	3329 G
Oy 1021 AAGTTGCATCCTTTGGGGG Db 3692 AAGTTGCATCCTTTGGGGG OY 1081 CTAATAATAAGCCAGAGAT	961 3632	Qy 901 ATTTGGAAGACAAGTACAG 	Qy 841 GAACAGGAGGATCCGTGT	Qy 781 ACGTCCCTCTCTGCGTGGA	Qy 721 TTATTAATTGTTTGACCAC Db 3392 TTATTAATTGTTTGACCAC	Oy 661 GTGATGCCTTGGACCAGCA		541 3212 601		Qy 421 AGCACTTTCTTTCCACGTC	Qy 361 CCGTCGAGGACCGAGTCAG	Oy 301 CACCGTATAACCTCAGCAC 	Oy 241 AGAACGTGAGCCACGTCAA 	Oy 181 CTCTCCAAGATCACCTCGA	Qy 121 TGCGCCAAGCTGAGGTGAT	Qy 61 ATGAGACCCTTGAAAGACT	Oy 1 AGGTCAATACTGAGTGGGA
AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGAAGTGCTTCCAATTG 1080	ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG	ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG 	GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC	ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC	TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780	GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720	TGANACTCCGNAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT	AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGATTATAGGACTGCAT 	TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG	AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA	CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC	CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG	AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT	CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG	TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT	ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC	AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG

1261 AGCACTTTAATTA/IGACATCTGCCAAAAGCTGCTTTTTTTCTGGTCCAGATGCCAAAAGGCC 1320	99 181 CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240	, da Að
	121 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180	qa Ab
1141 AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC 1200	Y 61 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGAAGCCTCAAGC 120 Db	B &
1081 CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 1140 	1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAATAG 60 	dg VQ
1021 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 1080	Query Match 100.0%; Score 1501; DB 10; Length 4476; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Db	
961 ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020 	1	us;
901 ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTG 960 	NUMBER OF SEQ II NOS: 36 QY SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 31 LENGTH: 4476	
841 GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCAC 900 	CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777 DRIOR PRIOR PRI	
781 ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 840		
721 TIATTAAITGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCA 780 	US-09-845-416-31 Qy ; Sequence 31, Application US/09845416 ; Publication No. US20030171312A1 ; GRUBERAL INFORMATION.	g
661 GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720 	Db 4172 Å 4172 Db	. D
	1501 A 1501	.Q
		g 0
	Db 4052 GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440 AUST GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 4111 Oy	ט ג
	3992	ם כ
421 AGCACTTTCTTCCACGTCTGTCCAGGGTCCCTGGGAGAGCCATCTCGCCAAACAAA		o u
	AGCACTTTAATTATGACAT	n
3056 CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 3115 361 CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGGCCACAGGGACTTTGGTCCAGCATCTC 420		п O
2996 AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGGCÁTŤCÁGCŤCŤ 3055 301 CACCGTATAACCTCCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360	OY 1141 AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCCAGAAACTGCCAAGCATC 1200	ם כ
241 AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT 300	3752 CTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAGACTGGAGACTGGAACCCCC 3811) H

US-09-845-416-30 US-09-845-416 Pablication No. D8200301713122A1 Pablication No. D8200301713122A1 Pablication No. D8200301713122A1 Pablication No. D8200301713122A1 Pablication No. D820030171312A1 Pablication No. D820030171312A1 Pablication No. D820030171312A1 Pablication No. D820030171312A1 Pablication No. D8A PABLICATION NOMBER: US-09-845-416 PATTHE D87 INVESTED NO. D8-10-88 PATTHE D87 INVESTE	Db 4076 ATAAAATGCACTATCCCATGGTGGAATATTTGGAACCAAAAGGTATTTTGCGAAGATGTTC 4135 Oy 1381 GAGACTTTGCCAAGGTACTAAAAACAAATTTCGAACCAAAAAGGTATTTTGCGAAGCATC 1440
DE 3498 TRITTANTOTTENACICITATION CONCENTENCIA CANCENTE CONCENTE CO	481 3258 541 3318 601 3378 661 3438

```
RESULT 8
US-09-845-416-29
Sequence 29, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DAS SEQUENCE ENCODING A DYSTROPHY MINIGENE AND TITLE OF INVENTION THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
INVMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
LENGTH: 4825
TYDE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Simil
Matches 1501; (
                                                                                                   3705
                                                                                                                                                                  3645
                                                                                                                                                                                                                               3585
                                                                                                                                                                                                                                                                                              3525
                                                                                                                                                                                                                                                                                                                                                            3465
                                                                                                                                                                                                                                                                                                                                                                                                                           3405
                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3345
                                                                                                                                  109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3225
                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                          GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                 TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                        TGAĀĀCTCCGAĀGĀCTGCĀGĀĀGGCCCTTTGCTTGGĀTCTCTTGĀGCCTGTÇĀĞCTĞCĀT
                                                                                                        TGAAACTCCGAAGAACACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                    AGCTCTACCAGTCTTAGGCTGACCTGAATAATGTCAGATTCTCAGGCTTATAGGACTGCCA
                                                                                                                                                                         AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 h 100.0%; Score 1501; Similarity 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                               ccerceaeaacceaercaeecaecrecareaaeccaeaecaecaecaecaecaecarcic
                                                                                                                                                                                                                                                                                                                                                                   CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                             CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĊŦĊŦĊĊŔĀĠĀŦĊŔĊĊŦĊĠŔĠŔĀŔĠŦĊŔŔĠĠĊŔĊŦŦĊĠŔĠĠŔĠŔŔŔŦŦĠĊĠĊĊŦĊŦĠŔŔŔĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGCCACGATGAGCTTGAAGCTLAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 4825;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USE
                                                                                        3764
                                                                                                                      660
                                                                                                                                                    3704
                                                                                                                                                                                     600
                                                                                                                                                                                                                     3644
                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                  3584
                                                                                                                                                                                                                                                                                                                                                3524
                                                                                                                                                                                                                                                                                                                                                                                                             3464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3404
                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
US-09-045-416-35

Sequence 35, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DAA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE

TITLE OF INVENTION INVASENCE ENCODING A DYSTROPHY MINIGENE AND USE

TITLE OF INVENTION HEREOF

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 50/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1

SSEQ ID NO 35
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                           4545
                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                        4485
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                          4605 A 4605
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                               ccceaarceecraccreccaerecaeacrercraedaeeeeaacaacareecee
                                                                                                                                                                                                                                                                                                                                                                                                            GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAAGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       agcactttaattatéacatétécéaaagetécttttttttttegetégagttécaaaagece
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ĊŦĀĀŦĀĀŦĀĀĠĊĊĀĠĀĠĀŦĊĠĀĀĠĊĠĠĊĊĊŦĊŦŦĊĊŦĀĠĀĊŦĠĠĀŦĠĀĠĀĊŤĠĠĀĀĊĊĊĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTCCATGGTGTGGCTGCCGTGCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC 4304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTCCATGGTGTGGCCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCAGCGCAGGCTGGGTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACACGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACAGGAGGATCCGTGTCTTTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                       USE
                                                                                                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                             4544
                                                                                                                                                                                                                                                                                                                                                                                                                                            1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3884
```

Ş 맑 Ś В S 밁 Ś В δ B Ş В Ş 밁 Ś В Ş 밁 S 멍 Ş 9 Ş

```
; LENGTH: 4848
; TYPE: DNA
; ORGANISM: Homo 8
US-09-845-416-35
                 S
                                            망
                                                            ð
                                                                                    밁
                                                                                                            Ş
                                                                                                                                          В
                                                                                                                                                            δ
                                                                                                                                                                                   밁
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1501; Conservative (
4028
                                              3968
                                                                                             3908
                                                                                                                                           3848
                                                                                                                                                                                           3788
                                                                                                                                                                                                                                          3728
                                                                                                                                                                                                                                                                                         3668
                                                                                                                                                                                                                                                                                                                                       3608
                                                                                                                                                                                                                                                                                                                                                                                       3548
                                                                                                                                                                                                                                                                                                                                                                                                                                      3488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3128
                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                      901
                                                                     841
                                                                                                                   781
                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                   AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCCAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
            ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                         ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                          TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                                                                                                                                          TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                      AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                              ACGTCCCTCTCTGCGTGGATATGTCTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                            TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCA
                                                                                                                                                                                                                                           TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                         AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                       TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCCAAAATGACAG
 ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 4848;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                       960
                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3187
                                                                                                                                            3907
                                                                                                                                                                                            3847
                                                                                                                                                                                                                                            3787
                                                                                                                                                                                                                                                                                           3727
                                                                                                                                                                                                                                                                                                                                                                                         3607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3247
                                              4027
                                                                                                                      840
                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                         3667
                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                        3547
                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
4087
                                                                                              3967
                                                                                                                                                                    780
```

```
SOFTWARE: PatentIn Ver. 2
SEQ ID NO 28
LENGTH: 4966
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-28
                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 10
US-09-845-416-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                   S
                                                        밁
                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
밁
                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 28, Application US/09845416 Publication No. US20030171312A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                    APPLICANT: XIAO, XIAO

APPLICANT: XIAO, XIAO

APPLICANT: XIAO, INA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE

TITLE OF INVENTION: THEREOF

TITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT FILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1
                                                                                                                               Query Match 100.0%; Score 1501; Best Local Similarity 100.0%; Pred. No. 0;
                                                                                                                   Matches 1501;
 3306
                                                          3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                       AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A 4628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                    Conservative
                                                                                                                   Mismatches
                                                                                                                                              DB 10;
                                                                                                                   0
                                                                                                                   Indels
                                                                                                                                              Length
                                                                                                                    0,
                                                                                                                    Gaps
   3365
                              120
                                                           3305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                    0
```

32 32 38 38 38	9 4 4 4 4	0 4 0 9	AAGACTGCAGAAG	481 TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGAGAGAC 1	- 42 - 42 - 48 - 48	121 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
;	04 OA OA	US-09-84 US-09-84 US-09-84 Query Best L Matche	TITLI FILE CURRI CURRI CURRI PRIOI PRIOI PRIOI NUMBE SOFT	RESULT US-09-8 ; Seque; ; GENEX; ; GENEX; ; TITI;	D	Q D Q D Q Q

В

성 음 성 음 성

B 8 8 8 8

음 성

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 34, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILLE REFERENCE: DE1142
CURRENT FALLING DATE: 2001-04-30
CURRENT FILLING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 34
LENGTH: 4990
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   r 11
-845-416-34
                                                                                                                                                                                                                                                                                                                                                                                                         Match 100.0%; Score 1501; Local Similarity 100.0%; Pred. No. 0; Local Similarity 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PE: DNA
GANISM: Homo sapiens
845-416-34
            3570
                                                                            3510
                                                                                                                                             3450
                                                                                                                                                                                                                                                                                                                                   3390
                                                                                                                                                                                                                                                                                 3330
                                          301
                                                                                                                                                                             181
                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4746 A 4746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4566
                                                                                                                                                                                                                                                                                       61 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                     CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360
CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                    AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                  AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                  CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                   receccaaecreaecraacearcaaecaecreecereecarcicarreacreecreeceres
                                                                                                                                                                                                                      TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                                     ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cccdaardddcraccrdccadrdcadacrdrcrradadddddacaacarddaaacrcccd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AĠĊĀĊŦŤŦĀĀŤŦĀŦĠĀĊĀŤĊŦĠĊĊĀĀĀĠĊŦĠĊŦŤŦŤŦŤŦĊŦĠĠŦĊĠĀĠŦŤĠĊĀĀĀĀĠĠĊĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 4990;
                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
 3629
                                                                  3569
                                                                                                  300
                                                                                                                                3509
                                                                                                                                                                                                   3449
                                                                                                                                                                                                                                   180
                                                                                                                                                                 240
                                                                                                                                                                                                                                                                     3389
                                                                                                                                                                                                                                                                                                                                     3329
                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1320
```

```
4410
                                                                                                                                                                                                                                                                                                                                                                         4350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                       4470
                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                   4290
                                   1381
                                                                                                                                               4530
                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                       CTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                   CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440
                                                                       ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                   AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                               AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                               AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                     AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCTCTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCCTTATAGGACTGCCA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                               AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTTGAGCCTGTCAGCTGCAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3929
                                                                                                          1380
                                                                                                                                                                                 1320
                                                                                                                                                                                                                         4529
                                                                                                                                                                                                                                                                                                                                                                                                                                                   4349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3809
                                                                         4649
                                                                                                                                               4589
                                                                                                                                                                                                                                                                                                 4469
                                                                                                                                                                                                                                                                                                                                                                         4409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3689
                                                                                                                                                                                                                                                                                                                                      1200
```

Ś

유

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

밁

5 B 5

₽

음 성 음

```
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION UNMER: US/09/845,416
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 36
LENGTH: 5060
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-36
               5
                                                     뮍
                                                                            δ
                                                                                                            밁
                                                                                                                                  δ
                                                                                                                                                                     밁
                                                                                                                                                                                               S
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
US-09-845-416-36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Sim
Matches 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 36, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                  3640
                                                                                                                                                                                                                                                                                                                                                     3520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4770 A 4770
                          541
                                                                                                                                                                                                                                                              301
                                                                                    481
                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 3459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 1500
                                                                                                               CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360
               AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                       TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                  CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                          AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                     CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                     CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                           AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                              TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; ilarity 100.0%; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                             600
                                                                                                                                              480
                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                           180
 3939
                                                                                    540
                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3399
                                                                                                                 3819
                                                                                                                                                                          3759
                                                                                                                                                                                                                                                                                             3639
                                                                                                                                                                                                                                                                                                                                                     3579
                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                               3519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                          3879
                                                                                                                                                                                                                                    3699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
```

```
RESULT 13
US-09-845-416-27
; Sequence 27, Application US/09845416
; Publication No. US20030171312A1
; GENERAL INFORMATION:
; APPLICANT: XIAO, XIAO
; TITLE OF INVENTION: DNA SEQUENCE EN
                                                                                                    & B
                                                                                                                                       δ
                                                                                                                                                        ďď
                                                                                                                                                                           δ
                                                                                                                                                                                              Ъ
                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                      Вþ
                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                        4840
                                                                                                         1501
                                                                                                                                                             4720
                                                                                                                                                                               1381
                                                                                                                                                                                                  4660
                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                    4600
                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                       4540
                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                           4480
                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                             4420
                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                4360
                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                   4300
                                                                                                                                                                                                                                                                                                                                                                                                                                                      4240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                       Þ
                                                                                                                              CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                      ĠAĠĀĊĪŦĪTĠĊĊĀĀĠĠŦĀĊŦĀĀĀĀĀĀĀĊĀĀĀĪŦĪŦĊĢĀĀĊĊĀĀĀĀĠĠŦĀŦŢŦŦĠĊĠĀĀĠĊĀŦĊ
                                                                                                                                                                   GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTTGCGAAGCATC
                                                                                                                                                                                                      ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                           ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                       AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                            AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                              AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                      AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                   AGTCCÁTGGTGTGGGCTGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                          AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                    AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                             ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                        ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGAGACAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGATGCCTTGGACCAGCACCACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGATGCCTTGGACCAGCACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                       1501
                                                                                        4840
 ENCODING A DYSTROPHY MINIGENE
                                                                                                                     4839
                                                                                                                                     1500
                                                                                                                                                        4779
                                                                                                                                                                         1440
                                                                                                                                                                                           4719
                                                                                                                                                                                                                              4659
                                                                                                                                                                                                                                                                                   1260
                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                 4599
                                                                                                                                                                                                                                                                                                                                       4479
                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                     4539
                                                                                                                                                                                                                                                                                                                                                                          4419
                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                              4359
                                                                                                                                                                                                                                                                                                                                                                                                                                                4299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
맑
              Ś
                                   뮍
                                                 Ş
                                                                    ДЪ
                                                                                    Ş
                                                                                                        밁
                                                                                                                       Ş
                                                                                                                                            밁
                                                                                                                                                             Ş
                                                                                                                                                                                밁
                                                                                                                                                                                                Ő
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
```

```
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 27
LENGTH: 5149
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 1501
4209
                                                            4149
                                                                                                                       4089
                                                                                                                                                                                   4029
                                                                                                                                                                                                                                                3969
                                                                                                                                                                                                                                                                                                            3909
                                                                                                                                                                                                                                                                                                                                                                       3849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3729
                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3669
                                                                                        721
                                                                                                                                                    661
                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3549
                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3429
                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       μ.
      ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                 TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCA
                                                                   TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCA
                                                                                                                                                                                          TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 100.0%; similarity 100.0%; ol; Conservative o;
                                                                                                                                 GTGATGCCTTGGACCAGCACCAAGCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                        AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC 420
                                                                                                                                                                                                                                      AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                 TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                     TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                             CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                          CGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                addrichatactigagtigggaaaaattigaacctigcacticcgctigactiggcagagaaaaaatag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1501;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                   840
                                                  4208
                                                                                                               4148
                                                                                                                                                                           4088
                                                                                                                                                                                                                                      4028
                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                   3968
                                                                                                                                                                                                                                                                                                                                                             3908
                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                          3848
                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
```

```
Sequence 42, Application US/10149736

Publication No. US20030216332A1

GENERAL INFORMATION:
APPLICANT: Chamberlain, Jeffrey S.
APPLICANT: Harper, Scott Q.
TITLE OF INVENTION: Mini-Dystrophin Nucleic Acids and FILE REFERENCE: UM-06968

CURRENT PILING DATE: 2002-06-17

PRIOR APPLICATION NUMBER: US/10/149,736

CURRENT FILING DATE: 2001-10-04

PRIOR FILING DATE: 2001-10-04

PRIOR FILING DATE: 2000-10-06

NUMBER OF SEQ ID NOS: 96

SOFTWARE: Patentin version 3.1

SEQ ID NO 42

LENGTH: 8689

TYPE: DNA

ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic
                                                                                                                                                                                                                                                                  RESULT 14
US-10-149-736-42
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                           음 중
                                                                                                                                                                                                                                                                                                                                                                                                            음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4449
                                                                                                                                                                                                                                                                                                                                                                                                                  4809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4389
                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCAGCGCAGGCTGGGCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAACAGGGAGGATCCGTGTCCTGTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                           and
                                                                                                                                                                                         Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                           1500
                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4328
                                                                                                                                                                                                                                                                                                                                                                                                                   4868
                       Ś
                                                      밁
                                                                            δ
                                                                                                     문
                                                                                                                        ঠ
                                                                                                                                                      밁
                                                                                                                                                                         δ
                                                                                                                                                                                                문
                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-149-736-42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match .
Best Local Si
Matches 1500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
hes 1500; Conserv
                                                       4569
                                                                                                        4509
                                                                                                                                                                                                                                                                                                        4269
                                                                                                                                                                                                                                                                                                                                                        4209
                                                                                                                                                                                                                                                                                                                                                                                                        4149
                                                                                                                                                                                                                                                                                                                                                                                                                                                         4089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3849
                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                             961
                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                     ACGTCCCTCTGCGGGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 840
                                                                                                                                                                                                                                                                   GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                       TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                       ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                      ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                    TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780
                                                                                                                                                                                                                                                         GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                       TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                    TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660
                                                                                                                                                                                                                                                                                                                                                        AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                    AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
         ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                      TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.9%; Score 1500; I
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3728
          4688
                                                        4628
                                                                                960
                                                                                                        4568
                                                                                                                                 900
                                                                                                                                                         4508
                                                                                                                                                                                                         4448
                                                                                                                                                                                                                                                         4388
                                                                                                                                                                                                                                                                                                          4328
                                                                                                                                                                                                                                                                                                                                                           4268
                                                                                                                                                                                                                                                                                                                                                                                                          4208
                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                           4148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6
```

QY 181 CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240	Qy 121 TGCGCCAAGCTGAAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180	Qy 61 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120	Qy 1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCGCTGACTGGCAGAGAAAAATAG 60 	Query Match 99.9%; Score 1500; DB 10; Length 11058; Best Local Similarity 100.0%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	8-0	70		APPLICANT: XIAO, XIAO ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE ; TITLE OF INVENTION: THEREOF ; FILE OF INVENTION: THEREOF	2 11 10 10 1	Db 5109 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 5168	Db 5049 ĠĀĠĀĊĪTTĪĠĊĊĀĀĠĪĀĊĪĀĀĀĀĀĀĀĀĀĀTĪĪĪĪĪĪĪĪĪĪ	1381	321	Qy 1261 AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTT			1141	11	QY 1021 AAGTIGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 1080
Qy 1 Db 9	Qy 1 Db 9	Qy 1 Db 9	ДУ 1 ДЬ 9	Qy Db	Db s	Qy Db	D Q	Qy da	Qy Db	QV	Ωy		OV Db	Оу	QV	Db Qy	Db	Qy Db	Qy Qy
.261 AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC 1320 	201 AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260 	.141 1869		1021 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 1080 	961 ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020 	901 ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG 960 	841 GAACAGGGAGGATCCGTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCAC 900 	781 ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 840 	721 TTAITAATIGTTIGACCACTATITATGACCGCCTGGAGCAAGAGCACAATTIGGTCA 780	661 GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720 	601 TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660			9149 AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA	AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA	361 CCGTCGAGGACCGAGTCAGGCAGCATGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC 420	9029 CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 9088		8909 CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 8968 241 AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT 300

Sea	밁	ફ	밁	ş	밁	ફ
arc)						
ime 1 CC						
: Gui	1016	144	1010	138	6	13;
ete	9	==	9	<u> </u>	9 7	- 12
381 : D) 	-0 -0 -0	ନ୍ଦ୍ର ପ୍ର	- 8 - 8	Į.	ĘĘ.
Search completed: March Job time : 908.381 secs	Ä-	=≌	Ç-	-11 -13	¥-	- & - &
Search completed: March 2, 2005, 20:00:52 Job time : 908.381 secs	ର - ଜ-	- 영 -	inc.	- d - d	Ω- Ω-	-0 2 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0
۲۷	CIA	Ξ₫.	Q:	Ξξ	Č.	- A
20		-g	- GT	-65 -51		-0
05,	3CC-	_წ _წ	Ğ	-5	ZAT	- H
20:	GTC	_ - - - - - - -	8	-8	ğ-	_ _ _ _
00:	ČAC	- Š	A-	-≨-	Ğ-	-Ğ
52	Ä-	- 13 - 13 - 13	¥-	=8	TAT	TAT
	GTC	- G	11-	-TT	TGC	-0.
	TA:	TTA	ନ୍ଦ୍ର	_မှု	ACT	-6 -6
	3AG GC	_କୁ -କୁ	6-	_გ _გ		_ပ္ပ _ပ္ပ
	90-	_ 등 등	\{\}	=\}	Ğ	- j
	JAC#	- C	ຄົ-	_ _ _ _ _	ζ.	-8 -8
	Ş-	-& -&	AT-	-AT	Q-	- Q
	- G	- ig	TIC	- TIG	GA-	-8 -8
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	- ¥ - ¥	Ç.	_ନ୍ନ -ନ୍ନ	Ã-	=≱ =ຄ
	G-	- C	AGC	_ନ -ନ	ATG	ATG
	က္ရ- ကြ	_ဥ	ATC	ATC	II.	-C
	10169 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 10228	1441 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 1500	10109 GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 10168	1381 GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440	10049 ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 10108	1321 ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380
	28	ŏ	.68	6	.08	ŏ

THIS PAGE BLANK (USPTO)

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
        იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           92:
          Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                     14995.2
14995.2
14995.2
14995.2
1489
1309.6
1309.
                                                                                                                                                                                                                                                                                  1500
1498.4
1498.4
1498.4
11498.4
11498.4
1498.4
11498.4
11498.4
11498.4
                                                                                                                                                                                                                                                1498.4
1498.4
                                                                                                                                                                                                                                   1498.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seq length: 0 seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IDENTITY_NUC Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-845-416-12_COPY_2000_3500
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 aggtcaatactgagtgggaa.....gacaacatggaaactcccga 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           March
       Issued_Patents_NA:*

| (cgn2_6/ptodata/1/ina/5A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/6A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/6A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/6B_COMB.seq:*
| (cgn2_6/ptodata/1/ina/BCOMB.seq:*
| (cgn2_6/ptodata/1/ina/backfIles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2, 2005, 04:16:40 ; Search time 261.233 Seconds (without alignments) 9401.765 Million cell updates/sec
       GenCore version 5.1.6 (c) 1993 - 2005 Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              띪
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gapext 1.0
                                   US-09-687-875A-1
US-09-949-016-2831
US-09-949-016-2813
US-09-949-016-2813
US-09-949-016-2811
US-09-949-016-2816
US-09-949-016-2816
US-09-949-016-2818
US-09-949-016-2819
US-09-949-016-2822
US-09-949-016-2822
US-09-949-016-2822
US-09-949-016-2823
US-09-949-016-2823
US-09-949-016-2804
US-09-949-016-2806
US-09-949-016-2806
US-09-949-016-2808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                     Sequence
                                                                                                                                                                                                                                                                                                                                                    Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
       1, Appli
2831, Ap
2831, Ap
2812, Ap
2813, Ap
2813, Ap
2815, Ap
2816, Ap
2817, Ap
2819, Ap
2822, Ap
2822, Ap
2823, Ap
2824, Ap
2825, Ap
2825, Ap
2826, Ap
2826, Ap
2826, Ap
2826, Ap
2827, Ap
2828, Ap
282
```

1000.8 66.7 4556 4 US-09-949-016-2827 1000.8 66.7 4556 4 US-09-949-016-2828 1000.8 66.7 4556 4 US-09-949-016-2829 1000.8 66.7 4556 4 US-09-949-016-2839 1000.8 66.7 4556 4 US-09-949-016-2839 1000.8 66.7 4556 4 US-09-949-016-2831 755.6 50.3 10320 4 US-09-091-5018-7 755.6 50.3 10320 4 US-09-091-5018-9 694.2 46.2 3499 4 US-09-949-016-276 46.1 3498 4 US-09-949-016-276 45.4 3915 4 US-09-949-016-14573 209.8 14.0 393753 4 US-09-949-016-14573 209.8 14.0 393753 4 US-09-949-016-14574 209.8 14.0 818128 4 US-09-949-016-14548 209.8 14.0 818128 4 US-09-949-016-14549 209.8 14	45	44	43	42	41	40	39	38	37	36	ω G	34	33	32	3	30	29	8
4556 4 US-09 4556 4 US-09 4556 4 US-09 4556 4 US-09 1571 4 US-09 10320 4 US-09 3499 4 US-09 3915 4 US-09 393753 4 US-09 393753 4 US-09 818128 4 US-09 818128 4 US-09 818128 4 US-09	209.8	209.8	209.8	209.8	209.8	209.8	209.8	681.8	692.6	694.2	755.6	755.6	999	1000.8	1000.8	1000.8	1000.8	TOOO. a
4 US-09 6 US-09 6 US-09 6 US-09	14.0	14.0	14.0	14.0	14.0	14.0	14.0	45.4	46.1	46.2	50.3	50.3	66.6	66.7	66.7	66.7	66.7	66.7
60 - 80	818128	818128	818128	818128	818128	393753	393753	3915	3498	3499	10320	6045	1571	4556	4556	4556	4556	4556
	4.	4	4	4	4	4	4.	4.	4	4	4	4	4	4.	4	4	4	4
	US-09-949-016-14550	-09-949-016	-09-949	-09-949	-09-949	9	-09	-09-976	-09-949-016-135		US-09-091-501B-9		-09-949	-09	-09-949	-09-949	-09-949	9T0-656-60-
	14550, A	14549, A	14548, A	14547, A	14546, A	14574, A	14573, A	93, App1	1359, Ap	276, App	9, Appli	7, Appli	2821, Ap	•	•	2828, Ap	•	-

ALIGNMENTS

US-09-687-875A-1

Sequence 1, Application Patent No. 6544786 GENERAL INFORMATION:

US/09687875A

PEI

```
밁
                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-687-875A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
LOCATION: (2897).. (2898)
OTHER INFORMATION: S4 junction site
NAME/KEY: misc feature
LOCATION: (3198).. (3199)
OTHER INFORMATION: S2 junction site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xiao, Xiao
APPLICANT: Liu, Paul
APPLICATION: METHOD AND VECTOR FOR PRODUCING AND TRANSFERRING TRANS-SPLICED
FILE REFERENCE: 00792
FILE REFERENCE: 00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3623
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3683 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 3742
                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG 3682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAG
AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTTGGACCTCAAGC
                                                                                                                              CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                         CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
                                                                                                                                                                                                                                                                                               TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 3802
                                                                                                                                                                                                                                                                                                                                             TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.9%; bru
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1500; I
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 5952;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
```

```
ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                  ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                      AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                        AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTCCÁTGGTGTGGCTGCCGTCCTGCACÁGÁGTGGCTGCTGCÁGÁÁÁCTGCCÁÁGCÁTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGGCCAAGCATC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ctaataataadecadaatecaaagegeeeretteetadaetgaatgagaetgaacege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGGAACCCC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAĞTTĞCATCCTTTĞĞĞĞĞĞĞĞAĞTAACATTĞAĞÇÇAAĞTĞT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCCAATTTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAGTTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTĠĠĀĀĠĀĊĀĀĠŦĀĊĀĠĀŦĀĊĊŦŦŦŦĊĀĀĠĊĀĀĠŦĠĠĊĀĀĠŦŦĊĀĀĊĀĠĠĀŦŦŦŦĠŦĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCAGCGCAGGCTGGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAAGCAC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ĠĀĀĊĀĠĠĠĀĠĠĀĊĊĠĪĠĪĊĊŢĠĬĊŦŦŦĬĀĀĀĀĊĪĠĠĊĀŢĊĀŢŦŢĊĊĊĪĠĪĠĪĀĀĀĠĊĀĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tratraatrigitrigaccactatritatgaccgccriggagcaagaagaccaacaatritggrca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGATGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĠŦĠĀŦĠĊĊŦŦĠĠĀĊĊĀĠĊĀĊĀĀĊĊŦĊĀĀĠĊĀĀĀĀŦĠĀĊĊĀĠĊĊĊĀŦĠĠĀŦĀŦĊĊŦĠĊĀĠĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGĀĀĀĊTĊĊĠĀĀĠĀĊŤĠĊĀĠĀĀĠĠĊĊĊŤŤŤĠĊŤŤĠĠĀŤĊŤĊŤĠĀĠĊĊŤĠŤĊĀĠĊŤĠĊĀŤ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a de renacea de renacea de la comencia del comencia del comencia de la comencia del la comencia de la comencia del la comencia de la comencia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTCTACCAGTCTTTAGCTGAACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           c c dr c da de a c c da de ca 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ĊĀĊĊĠŦĀŦĀĀĊĊŦĊĀĠĊĀĊŦĊŦĠĠĀĀĠĀĊĊŦĠĀĀĊĀĊĀĠĀŦĠĠĀĀĠĊŦŦĊŦĠĊĀĠĠŦĠĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       'CCGGAGCTGCTTCCAATTTG
                                                     5002
                                                                                                                                                                                                                                        1320
                                                                                                                  1380
                                                                                                                                                                           4942
                                                                                                                                                                                                                                                                                                        4882
                                                                                                                                                                                                                                                                                                                                                                                                                                 4822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2831. Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF IVENTER POLYMORPHISMS IN KNOWN GENES ASS.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF IVENTER PELICATION NUMBER: US/09/949,016

PRICE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SECTUARE: FRANCES FOR WINDOWS Version 4.0

LENGTH: 5627

TYPE: DNA

ORGANISM: Human

US-09-949-016-2831
                                                                      Ş
                                                                                                                                   맑
                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
US-09-949-016-2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 1499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                1023
                                                                481
                                                                                                                                                                                            421
                                                                                                                                                                                                                                                         963
                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                  903
                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _
                                                                                              | CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                       CACCGTATĂACCTCĂĠĊĂĊTCTĠĠĂĂĠĂCCTĠAĂĊĂCĊĂĠĂTĠĠĂĂĠCTTĊTĠĊAĠĠTGĠ
                                                                                                                                                                                                                                                                                                                                                                                            CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          crcrccaadarcaccrcdadaaadrcaadgcacrrcdaddaaaaarrdcdccrcrdaaad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAGA CCCTTGAAAGA CTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGAAGCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.8%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1498.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 5627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
```

Gaps

0

4523

961

4463

901

4283

661

4223

601

4163

4103

481

541

4043

3983

421

3923

361

'B Ş 밁 δ 밁 δ Дb Ś B Ś В δ 밁 Ş В 5 뭥 Ś 밁 Ś В Ş 밁 δ В Ş 밁 Ş В Ş 밁 Ś 밁 δ В Ş

4943

540 1082 480 1022 420 962 360

300 842 240 782 180 722 120 662 60

```
RESULT 3
US-09-949-016-2832
; Sequence 2832, Application US/C; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et
                                                                                                                                                                  ঠ
                                                                                                                                                                                         밁
                                                                                                                                                                                                        S
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                             δ
                                                                                                            유양
                                                                                                                                              몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                              음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                     1743
                                                                                                                                                                                                                                                                                                           1683
                                                                                                                                                                                                                                                                                                                                                 1623
                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                               1441
                                                                                                                  1983
                                                                                                                                                      1923
                                                                                                                                                                        1321
                                                                                                                                                                                            1863
                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                1803
                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                     1563
                                                                                                                                                                                                                                                                                                                                                                                                                          1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1083
                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                               AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                               AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                    AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                           CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                     CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                      ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGATGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                       CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 1500
                                                                                                                                                       ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                               ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                      AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGTCCCTCTCTGCGTGGATATGTCTGTAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                                                                            AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                               US/09949016
                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1142
                                                                                                                                    1440
                                                                                                                                                       1982
                                                                                                                                                                                            1922
                                                                                                                                                                                                                                                                      1802
                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                 1682
                                                                                                                                                                                                                                                                                                                                                                                      1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1262
                                                                                                                  2042
                                                                                                                                                                                                                                                                                                                                                                                                                          1562
                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  720
                       문
                                            ş
                                                                   문
                                                                                Ş
                                                                                                   밁
                                                                                                                        S
                                                                                                                                           문
                                                                                                                                                         5
                                                                                                                                                                                 뮍
                                                                                                                                                                                               & 함
                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                         1143
                                                                                                                                              1083
                                                                                                                                                                                   1023
                                                  661
                                                                                      601
                                                                                                                                                               481
                                                                                                                           541
                                                                                                                                                                                                     421
                                                                                                                                                                                                                       963
                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                  663
             721
                                                                                                                                                                                                                                                             903
                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                  843
                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                       783
                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                             723
                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                       603
                                                                                                                                                                                                                                                                                                                                                                                                                                    61
```

```
; SEQ ID NO 2832
; LENGTH: 5627
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 99.8%;
Best Local Similarity 99.9%;
Matches 1499; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
FITTE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLC01307
CURRENT APPLICATION UNMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION UNMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-30
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION UNMBER: 60/231,498
PRIOR FILING DATE: 2000-10-03
PRIOR PRIOR SEQ ID NOS: 207012
SOFTWARE: FASTSSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                               GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                      AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCA
                                                                                                                                                                                                                          AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                    TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                     TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                          CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Score 1498.4; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                1262
                                                                                                                                                                                        660
                                                                                                                                                                                                                              1202
                                                                                                                                                                                                                                                                                                              1142
                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                             1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

```
RESULT 4
US-09-949-016-2812
; Sequence 2812, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-02
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
SOFTWARE: FastSEQ for Windows Version 4.0
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      유왕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cccdaardddcraccrdccadrdcadacrdrcrradadddddaacaacarddaaacrcccd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCCABATGTBACATCTGCABAGAGTGTCCBATCATTGGATTCAGGTBCAGGAGTCTBA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĊTAATAATAAĠĊĊĀĠĀĠĀŦĊĠĀĀĠĊĠĠĊĊĊŦĊŦŦĊĊŦĀĠĀĊTĠĠĀŦĠĀĠĀĊŢĠĠĀĀĊĊĊĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTAATAAGAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGCGCAGGCTGGGCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTCCATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAACAGGGAGGATCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 refrederrecerected acada de la composição de la composiçã
                                                                                                                                                                                                                                                                                                    AND
                                                                                                                                                                                                                                                                                                  USES
                                                                                                                                                                                                                                                                                                THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1442
                               Ś
                                                                       밁
                                                                                                           Ś
                                                                                                                                          밁
                                                                                                                                                                                  8
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Human US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1499; Conserv
                                                                     3017
                                                                                                                                                   2957
                                                                                                                                                                                                                                 2897
                                                                                                                                                                                                                                                                                                               2837
                                                                                                                                                                                                                                                                                                                                                                                           2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2537
                                 961
                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2297
                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \vdash
ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                             ATTTGGAĀGĀĆĀĀĢTĀCĀĢĀTĀCCTTTTCAĀĢCĀĀĢTGGCĀĀGTTCĀĀCĀGGĀTTTTGTG
                                                                                      ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                 GAACAGGGAGGATCCGTGTCCTGT
                                                                                                                                                                                                                      ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                             ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCATGATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                         GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCGATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                  TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                           TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                ĠŦĠĀŦĠĊĊŦŦĠĠĀĊĊĀĠĊĀĊĀĀĊĊŦĊĀĀĠĊĀĀĀĀŦĠĀĊĊĀĠĊĊĊĀŦĠĠĀŦĀŦĊĊŦĠĊĀĠĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGGCCAAAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCGTÁTAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTTGAACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 1498.4;
; Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                               3076
                                                                                                  960
                                                                                                                                          3016
                       1020
                                                                                                                                                                                900
                                                                                                                                                                                                                      2956
                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                    2896
                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                2836
                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                              2776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
```

2596 480 2536

2476 420

360

300 2416

2356

240

2296

180 2236 120 2176

CONSERVATIVE 0; CONSERVATIVE 0; GTCAATACTGAGTGGGAAAA GTCAATACTGAGTGGGAAAA GTCAATACTGAAAGACTCCA GAGACCCTTGAAAGACTCCG GGCCAAGCTGAGGTGATCAA	; PRIOR APPLICATION NUMBER: 60/331,498 ; PRIOR FILING DATE: 2000-09-08 ; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FRANCSEQ for Windows Version 4.0 ; SEQ ID NO 2813 ; LENGTH: 7109 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-2813 Query Match Best Local Similarity 99.8%; Score 1498.4; DB 4; Length 7109; Best Local Similarity 99.9%; Pred. No. 0:	SEQUENCE 2813, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION: ; APPLICANT: VENTER, J. Craig et al. ; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ; FILE REFERENCE: CL001307 ; CURRENT APPLICATION NUMBER: US/09/949,016 ; CURRENT FILING DATE: 2000-04-14 ; PRIOR APPLICATION NUMBER: 60/241,755 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR FILING DATE: 2000-10-03	Db 3437 ATAAAATGCACTATCCCATGGGAATATTGCACTACATCAGAGAGAAGATGTTC 3496 Qy 1381 GAGACTTTGCCAAGGTACTAAAAACAAATTTCGAACCAAAAGGTATTTTGGAAGATTT 1440	Db 3077 ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAAATTCCAAATTTGGTTGG
ب نر رن نر رن نر	Qy 901 Db 3017 Qy 961 Db 3077 Qy 1021 Db 3137	Db 2777 Qy 721 Db 2837 Qy 781 Db 2897 Qy 841 Db 2957	Qy 461 Db 2597 Qy 541 Db 2657 Qy 601 Db 2717 Qy 661	N N N N N N
CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC	1 ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG 960	777 GTGATGCCTTGGACCAGCCAAGCAAAATGACCCAGGCCATGGATATCCTGCAGA 2836 721 TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTTGGTCA 780 721 TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTTGGTCA 780 781 ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAAGGACCAACAATTTGGTCA 2896 781 ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 840 781 ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 2996 897 ACGTCCCTCTCTGCGTGGATATGTGTTCTGAAACTGGCTGCTGAATGTTTATGATACGGGAC 2956 841 GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC 900 841 GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCAC 3016		

Db 2417 CACCGTATAACCTCAGCACTCTGGAAGACCTGAACCCAGATGGAAGCTTCTGCAGGTGG 2476 QV 361 CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC 420	181 2297	QY 121 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCGTGGGCGATCTCCTCATTGACT 180	61 2177	Qy 1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCGCTGACTGGCAGAGAAAAATAG 60	Query Match 99.8%; Score 1498.4; DB 4; Length 7109; Best Local Similarity 99.9%; Pred. No. 0; Matches 1499; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	TYPE: DNA ORGANISM: Human S-09-949-016-2814	; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 2814 ; LENGTH: 7109	PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR FILING DATE: 2000-09-08	CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20	APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CLOO1307	US-09-949-016-2814 ; Sequence 2814, Application US/09949016 ; Patent No. 6812339 ; GENERAL IMFORMATION.	3557 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG	1441	-(1	Db 3437 ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380	3377 AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC	Db 3317 AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 3376 OY 1261 AGCACTTTAATTATGACATCTGCCAAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGCCC 1320
'nά	1261 3377	Qy 1201 AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260	OY 1141 AGTCCATGGTGTGGCTGCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC 1200	Qy 1081 CTAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 1140	Qy 1021 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 1080	OY 961 ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTG 1020	QY 901 ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG 960	QY 841 GAACAGGAAGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAACAC 900	781 2897	721 TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAGGAGCAGAGACAATTTGGTCA 	Qy 661 GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720	Qy 601 TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660	Db 2657 AGCTCTACCAGTCTTTAGCTGACCTGAATAATCTCAGATTCTCAGCTTATAGGACTGCCA 600	TGCCCTTACTATATCAACCACGAGACTCCAAACAACTTGCTGGGACCATCCCAAAATGACAG	253 / AGCACTITICITICCACGTCTCCACGGGTCCCTGGGAGAGAGAGCCÁTCTCGCCAAAACAAG 2596 QY 481 TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG 540	421 AGCACTTTCTTTCCACGTCTGTCCAGGGTTCCCTGGGAGAGAGA	Db 2477 CCGTCGAGGACCGAGTCAGGCTGCACGGGCCTCCACGGGACTTTGGTCCAGCATCTC 2536

밁

```
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-010-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-10-09
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-949-016-2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2815, Application Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 1499;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2237
                                                                                                                                                                                                                                                                                                                                                                                                           2477
                                                              2657
                                                                                                                                                                                                                                                                                             2537
                                                                                                                                                                            2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                   541
                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAACGTGAGCCACGTCAATGACCTTGCTCGCCCAGCTTACCACTTTGGGCATTCAGCTCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
     TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660
                                                                                               AGCTCTACCAGTCTTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAAGGACTGCCA 600
                                                                                                                                                                                                             TGCCCTACTATATCAACCACGAGACTCAAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                             CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                               TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCG 3616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1498.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2476
                                                              2716
                                                                                                                                                                               2656
                                                                                                                                                                                                                                                                                             2596
                                                                                                                                                                                                                                                                                                                                                                                                           2536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
US-09-949-016-2816
; Sequence 2816, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES AS:
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR FILING DATE: 2000-10-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGAAACATGGAAAACTCCCCG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGĀTGCCTTGGACCAGCACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGAGCTGCTTCCAATTTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTCCATGGTGGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 3256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAGCGCAGGCTGGGCCTTCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAGGGAGGATCCGTGTCTTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                 ASSOCIATED OF DETECTION
                                                                                                                                                    AND
                                                                                                                                                    USES
```

3436

3316

3556

3496

3076

960

3016

900 2956 2896

2836

2776

3136

3196

ð

S

日 δ 밁

THEREOF

밁

S 밁 á 밁 δ 밁 S 밁 Ş 밁 S 밁 S 밁 S

```
Ś
                                                                   밁
                                                                                                               Ś
                                                                                                                                                                                                     δ
                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                    뭣
                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTWARE: FastSEQ for Windows Version 4.
; SEQ ID NO 2816
; ORGANISM: Human
; ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local Similarity Matches 1499; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                   2837
                                                                                                                                                                                                                                                                 2777
                                                                                                                                                                                                                                                                                                                                                               2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2417
                    841
                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                            TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780
                                                                              ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATTTTTATGATACGGGAC 840
                                                                                                                                                                                                                                               grearecciredaccaecaccaccicaaecaaaareaccaeccarecaracaracciedas
                                                                                                                                                                                                                                                                           GTGATGCCTTGGACCAGCACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                            TGAĂĂCTCCGĂĂGĂCTGCĂGĂĂGGCCCTTTGCTTGGĂTCTCTTGĂGCCTGTCĂGCTGCĂT
                                                                                                                                                                                                                                                                                                                                                                         TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ccerceaeeaecceaercaeccaecareaaecceaeaecrrreerceceecarcre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ĊŦĊŦĊĊAĀĠĀŦĊĀĊĊŦĊĠĀĠĀĀĀĠŦĊĀĀĠĠĊĀĊŦŤĊĠĀĠĠĀĠĀĀĀŦŦĠĊĠĊĊŤĊŦĠĀĀĀĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGAGACCCTTGAAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tececcaaecreaecrearica a de la marca del marca de la marca del marca de la marca del la marca de la marca del marca del la marca del la marca del la m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTTGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; Score 1498.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4; Length 7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                 2896
                                              2956
                                                                                                                                                                                                                                               2836
                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                               2776
                                                                                                                                                                                                                                                                                                                                                                                                                                               2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
뭐
                           Ş
                                                       밁
                                                                             S
                                                                                                        밁
                                                                                                                           Ś
                                                                                                                                                       밁
                                                                                                                                                                          δ
                                                                                                                                                                                                       B
                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맑
                              1441
                                                      3497
                                                                                                     3437
                                                                               1381
                                                                                                                                                       3377
                                                                                                                                                                               1261
                                                                                                                                                                                                       3317
                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                       3257
                                                                                                                                                                                                                                                                                                                                                                                                         3077
                                                                                                                                                                                                                                                                                                                                                                                                                                                        3017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2957
                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
              CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 1500
                                                            GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC 1440
CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                               GAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                             ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 3496
                                                                                                              ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380
                                                                                                                                                              AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC 1320
                                                                                                                                                                                                             AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                              AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                                                                                              AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                               AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                              ĊŦĀĀŦĀĀŦĀĀĠĊĀĠĀĠĀŦĊĠĀĀĠĊĠĠĊĊĊŦĊŦŦĊĊŦĀĠĀĊŦĠĠĀŦĠĀĠĀĊŦĠĠĀĀĊĊĊĊ
                                                                                                                                                                                                                                                                                                              CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                               ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                              AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTG 1080
                                                                                                                                                                                                                                                                                                                                                AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3616
                                                                                                                                               3436
                                                                                                                                                                                                3376
                                                                                                                                                                                                                                                3316
                                                                                                                                                                                                                                                                                              3256
                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                3196
                                                                                                                                                                                                                                                                                                                                                                                                 3136
                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                 3076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3016
```

```
SOFTWARE: FastSEQ for Windows Version (
SEQ ID NO 2817
: LENGTH: 7109
: TYPE: DNA
: ORGANISM: Human
US-09-949-016-2817
                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR PPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
    Query Match 99.1
Best Local Similarity 99.1
Matches 1499; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: VENTER, J. Craig et al.

IITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                           99.8%;
                         Score 1498.4;
Pred. No. 0;
         <u>.</u>
    Mismatches
                                                                                                                                                                                                         4.0
                                                DB 4;
    <u>ب</u>
    Indels
                                         Length
                                            7109;
  0,
Gaps
  0,
```

US-09-949-016-2817
; Sequence 2817, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:

```
3137
                                                                              3077
                                                                                                                                3017
                                                                                                                                                                                     2957
                                                                                                                                                                                                                                         2897
                                                                                                                                                                                                                                                                                             2837
                                                                                                                                                                                                                                                                                                                                                  2777
                                                                                                                                                                                                                                                                                                                                                                                                      2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2177
1081
                                                                                                       961
                                                                                                                                                           901
                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCC 1140
                                                                                                                                ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                      GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                     TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCCTACTATATCAACCACGAGACTCAAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAGACCCTTGAAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG 1080
                                                                                            ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                     GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                        ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                      ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                             TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGAACAACTATGGTCA
                                                                                                                                                                                                                                                                                                                        TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                         AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                              ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                       TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCGTCGAGGACCGAGTCAGGCAGCATGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                              3136
                                                                                                                                3076
                                                                                                                                                           960
                                                                                                                                                                                     3016
                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                         3196
                                                                                                                                                                                                                                         2956
                                                                                                                                                                                                                                                                                              2896
                                                                                                                                                                                                                                                                                                                                                    2836
                                                                                                                                                                                                                                                                                                                                                                                                         2776
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
            밁
                           ð
                                                              밁
                                                                                   5
                                                                                                             밁
                                                                                                                                       Ş
                                                                                                                                                                      문
                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                              61
```

밁

중 유

 ર્ક

S

밁

5 B 5

밁

δ

₽

```
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER: 00/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER: OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 2818
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-09-949-016-2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2818, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
                                                                                                                                                                                                                                                                                                                                     Matches 1499;
                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                      1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240
                                                                                                                                                                                        ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCCAAATGTAACATÇTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                   AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTĒCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC 1200
                                                                                                                                                                ATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCGAGTTGCAAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                       99.8%;
                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                   Score 1498.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                   ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                   <u>.</u>
                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                           180
                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3256
                                                                                  2296
                                                                                                                                                                                                                                                   2176
                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3496
                                                                                                                                                                     2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3556
                                                                                                                                                                                                                                                                                                                                     0
```

```
₽
8
                                                                                                                                 뮍
                                                                                                                                                                          Ş
                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                      δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                      3137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380
                                                                                                                                                     AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                                                                            AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                   AGT CCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                                                                                                                                                CTAATAAGACCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          accadedcadecredecrectrerecardatretarecaaarrecaadacagredere
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTGGTCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 2776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      recertaerare adecide de la recensión de la rec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGGCATTCAGCTCT
                                                                                                                               3376
                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                       3256
                                                                                                                                                                                                                                                                                                                                                                                           3196
                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                    밁
                                                        Š
                                                                                                      밁
                                                                                                                                      Ś
                                                                                                                                                                                     В
                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                장 유
```

```
Sequence 2819, Application US/09949016

Fatent No. 6812339

FATENT INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES

FILE REFERENCE: CLO01307

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FASTSEQ FOR WINDOWS Version 4.0

CRGANISM: Human

US-09-949-016-2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 11
US-09-949-016-2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1499; Conserv
          2537
                                                                             2477
                                                                                                                                               2417
                                                                                                                                                                                                                  2357
                                                                                                                                                                                                                                                                                     2297
                                                                                                                                                                                                                                                                                                                                                        2237
                                                                                                            361
                                           421
                                                                                                                                                                               301
                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3437
                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC 420
                                                                                                                                                             CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGCTTCTGCAGGTGG 360
                                                                    ccerceaegacceaegcaecaecareaaeccaeaegegacrireerccaecarcic
                                                                                                                                      CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                         AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                              AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                          CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                   TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                ATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1498.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USES
                                                                    2536
                                                                                                                                       2476
                                                                                                                                                                                                         2416
                                                                                                                                                                                                                                                                            2356
                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                               2296
                                                                                                                                                                                                                                                                                                                                                                                                                  2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3496
```

```
멍
                                              5 B S
                                                                                                   밁
                                                                                                                  5
                                                                                                                                        멍
                                                                                                                                                    ঠ
                                                                                                                                                                          밁
                                                                                                                                                                                        S
                                                                                                                                                                                                        밁
                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
용
           S
                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                       3377
                                                                                                                                         3317
                                                                                                                                                                            3257
                                                                                                                                                                                                              3197
                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                 3137
                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                   3077
                                                                     3437
                                                                                     1321
                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                     3017
                                                                                                                                                                                                                                                                                                                                                        2957
                                                                                                                                                                                                                                                                                                                                                                                                                             2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2717
                                                                                                                                                                                                                                                                                                                                                                                           2897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2597
                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                  TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG
                                                                   AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA 1260
                                                                                                                                                                                    AGTCCATGGTGTGGCCGGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC 1200
                                                                                                                                                                                                                       CTAATAAGACAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC 1140
                                                                                                                                                                                                                                                          AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTG 1080
                                                                                                                                                                                                                                                                                             ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                          AGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTGGATTCAGGTACAGGAGTCTAA
                                                                                                                                                                           AGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTGCTGCAGAAACTGCCAAGCATC
                                                                                                                                                                                                               CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                    ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                      ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                               ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                   1440
                                                                                                                       1320
                                                                                    1380
                                                                                                                                         3376
                                                                                                                                                                                                                                                 3196
                                                                                                                                                                                                                                                                                  3136
                                                                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                                                                                      3076
                                                                                                                                                                                                                                                                                                                                                         3016
                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                             2896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
3616
                                                                     3496
                                                                                                       3436
                                                                                                                                                                            3316
                                                                                                                                                                                                               3256
                                                                                                                                                                                                                                                                                                                                                                                           2956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2656
                  1500
```

RESULT 12 US-09-449-016-2820 ; Sequence 2820, Application ; Patent No. 6812339

US/09949016

```
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER.
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FRANCESEQ for Windows Version 4.0
SEQ ID NO 2820
LENGTH: 7109
TYPE: DNA
CRGANISM: Human
US-09-949-016-2820
                                          음 성
유
                                                                                 닭
                                                                                                        S
                                                                                                                                    뮍
                                                                                                                                                     5
                                                                                                                                                                          B
                                                                                                                                                                                                  δ
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                  Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1499; Conserv
                                                                                        2657
                                                                                                                                      2597
                                                                                                                                                                                   2537
                                                                                                                                                                                                                                                                            2417
                                                                                                                                                                                                                                                                                                                         2357
                                                                                                                                                                                                                                                                                                                                                                       2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2117
                                                                                                               541
                                                                                                                                                             481
                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                           CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                         CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                   AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                             TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT
                                                                                        AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                    AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA 600
                                                                                                                                    TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                   AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCCAAACAAG
                                                                                                                                                                                                                                CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.8%;
ilarity 99.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1498.4; Pred. No. 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             THEREOF
                                                                    660
                                             2776
                                                                                                                                                             540
                                                                                           2716
                                                                                                                                      2656
                                                                                                                                                                                   2596
                                                                                                                                                                                                           480
                                                                                                                                                                                                                                2536
                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                             2476
                                                                                                                                                                                                                                                                                                                          2416
                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                       2356
                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                     2296
                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                    360
```

Indels Length

0;

Gaps

2176 120

60 0,

```
Sequence 2822, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENYER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSITITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF ILLE REFERENCE: CLOOL307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-20

PRIOR PILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 13
US-09-949-016-2822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cccdaardegcraccreccagrecagacrerraagagggggacaacaregaaacreceg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCAAAAGGTATTTTTGCGAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTCTGGTCCAGTTTGCAAAAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTCCATGGTGTGGCGGGCGGTCCTGCAGAGTGGCTGCTGCAGAAACTGGCGAAGCATC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A GT C CAT G G G T G C C G T C C T G C A C A G A G T G G C T G C A G A A A C T G C C A A G C A T C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTAATAATAAGCCAGAGATCGAAGCGGCCTCTTCCTAGACTGGATGAGACTGGAACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTTGCATCCTTTGGGGGGAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           accadedecadecridedecricerrerdeardarrerarecadarrecadadecadridedrig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTĠĠĀĀĠĀĊĀĀĠTĀĊĀĠĀTĀĊĊTŦŦŦĊĀĀĠĊĀĀĠŦĠĠĊĀĀĠŦŤĊĀĀĊĀĠĠĀŤŦŤŤġŦĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTGGTCA
                                                                                                                                                                                                                                                                                                                ASSOCIATED
OF DETECTION AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                   밁
                                                       Ş
                                                                                                                     B
                                                                                                                                                            Ś
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LENGTH: 7141
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 99.8
Best Local Similarity 99.8
Matches 1499; Conservative
                3017
                                                                                                                  2957
                                                                                                                                                                                                                            2897
                                                                                                                                                                                                                                                                                                                                   2837
                                                                                                                                                                                                                                                                                                                                                                                                                                        2777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2477
                                                                901
                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2537
                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
ATTTGGAAGACAAGTACAGATACCTTTTTCAAGCAAGTTGGCAAGTTCAACAGGATTTTGTG
                           ATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAGTTGGCAAGTTCAACAGGATTTTGTG
                                                                                                                                GAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                    GAACAGGAAGGATCCGTGTCTTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCAC
                                                                                                                                                                                                         ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                       ACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGAC
                                                                                                                                                                                                                                                                                                                THATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                               TTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCCACAACAATTTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                    GTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGA 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCAT 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ageteraceagretrageteacetgaataatgieagatreteagetrataggaetgeea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCCAAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGTCGAGGACTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTC 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCACTTI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HITTHE THE PROPERTY OF THE PRO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cTcTcCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               retriteca estere en a la compara de la compa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vaga crecké kadece cririe crieda referida de cererea e e 2776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1498.4; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4;
```

2476

2416 300 2356 240 2296 180 2236

3076 960 3016

900 2956 840 2896 780 2836

Query Match Best Local Similarity 99.8%; Score 1498.4; DB 4; Length 7141; Best Local Similarity 99.9%; Pred. No. 0; Matches 1499; Conservative 0; Mismatches 1; Indels 0; Gaps 0; Qy 1 AGGTCAATACTGAGTGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAATAG 60	NUMBER OF SEQ ID NOS: 207012 SOPTWARE: FASUSEQ for Windows Version 4.0 SEQ ID NO 2823 LENGTH: 7141 TYPE: DNA ORGANISM: Human US-09-949-016-2823	FILE REFERENCE: CL001307 CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR RILING DATE: 2000-10-20 PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/231,768 PRIOR APPLICATION NUMBER: 60/231,498	RESULT 14 US-09-949-016-2823 ; Sequence 2823, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION: ; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF		AGGACTTTGCCAAGGTACTAAAAAAAAAATAAATTTCGAAGCTAGAAAGGTTTTTGCGAAGCGAGCCAAGCCATCGAGCCAAAAGGCCCAAGAAAGGCCCAAGAAAAGGCCCAAGAAAAGGCCCATTAAATTATGACATTATGCACTTCTGGAGTTGCAAAAAGGCCCATCAAAAATGCACTACATCAGGAGAAAAAGATGTTCAGGAGAAAATGCCATTATAAAATGCACTACATCAGGAGAAAAAGATGTTCAAGAAAATGCACTACATCAGGAGAAAAGATGTTCAGGAAGATGTTCAGGAAGATGTTCAGGAAGATGTTCAGGAAGATGTTCAGGAAGATGTTTTGCACTTAGAAAGGTTATTTTGCAAGCCATCAGAAGATGTTTTTTTT		Db 3077 ACCAGCGAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAACACAGTTGGGTG 3136 Qy 1021 AAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTTGCGAAGCAGTTGGGTG 1080	Qy 961 ACCAGCGCAGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTG 1020
Oy 1021 AGTTGCATCCTTTGGGGGCAGTACATTGAGCCAGTGTCCGGAGCTGCTTCCAATTTG	3017 ATTIGGAAGACAAGTACCATTICCAAGCAAGTGCCAAGTTCCAAGACAGTTGGGTGGTGGTAAGACAGGTTGGGTGGTAAGACAAGTTCTAAGCAAGTTCCAAGACAAGTTTGGGTGGTGGTTGGT	781 2897 841 2957		Qy 541 AGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCA 600	Oy 421 AGCACTITCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGAGCCATCTCGCCAAACAAA	Oy 301 CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360	237 TGCGCCAAGATCAACTCAAGGATCATGAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 181 CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG	Qy 121 TGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACT 180

Oy 361 CCOTTCAGACACCASATTCAGCACACTTCACAAGGACACTTTTGATCCAGCACATTCAGACCACACTTTGATCCAGCACTTTCAGACCACACTTTGATCCAGCACTTTCAGACCACACACTTTCAGACCACACTTTCAGACCACACTTTCAGACCACACTTTCAGACCACACTTTCAGACTTCAAAATACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACTTCAGACACACAC	Qy 301 CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGG 360	241 2357	QY 181 CTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAG 240	121 2237	QY 61 ATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGC 120	1 2117	Query Match Best Local S Matches 1499	s-0	; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 2824 ; LENGTH: 7141	# PRIOR APPLICATION NUMBER: 60/237,768 # PRIOR FILING DATE: 2000-10-03 # PRIOR APPLICATION NUMBER: 60/231,498 # PRIOR FILING DATE: 2000-09-08	CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20	; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ; FILE REFERENCE: CLOO1307	US-09-949-016-2824 ; Sequence 2824, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION:	Db 3557 CCCGAATGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 3616 RESULT 15	1441		Db 3437 ATAAAATGCACTATCCCATGGAATATTGCACTCCGACTACATCAGGAGAAGATGTTC 1380	3377	
	13 34	1321 3437	1261 3377	1201 3317	1141 3257	1081 3197	1021 3137	ω	901 3017	841 2957	N	721 2837	661 2777	6 27	2657	2597 541	481	421	361 2477

Job ti	Search	망	Ş
Job time : 267.233 secs	Search completed: March 2, 2005, 07:49:02	3557 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGACAACATGGAAACTCCCG 3616	1441 CCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGGGGGGACAACATGGAAACTCCCG 1500

THIS PAGE BLANK (USPTO)

```
Regult
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence:
                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being part and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                          Score
    1000.00
1000.00
1000.00
1000.00
1000.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-845-416-10_COPY_2000_3500
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                March 2,.2005, 06:35:12; Search time 897.381 Seconds (without alignments) 9911.195 Million cell updates/sec
                                                                                                                                                                                                                                                          Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5394803 seqs, 2962729879 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 ttctacgaaagcaggctgag.....gtgcagactgtcttagaggg 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Published Applications NA:*

1: /cgn2_6/ptodata/2/pubpna/USO7_PUBCOMB.seq:*
2: /cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
3: /cgn2_6/ptodata/2/pubpna/USO6_NEW_PUB.seq:*
4: /cgn2_6/ptodata/2/pubpna/USO6_PUBCOMB.seq:*
5: /cgn2_6/ptodata/2/pubpna/USO7_NEW_PUB.seq:*
5: /cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
6: /cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                          / Cgn2_6/ptodata/2/pubpna/USO8_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO8A_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO9A_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO9C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO9C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO9_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO9_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO9_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO0_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/USO0_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cgn2
                                                                                                                                                                                                                                                          Length DB
                                           3510
3531
3858
3858
3999
4182
4476
4498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
      111111111
US-09-845-416-13

US-09-845-416-12

US-09-845-416-12

US-09-845-416-12

US-09-845-416-6

US-09-845-416-6

US-09-845-416-31

US-09-845-416-31

US-09-845-416-35

US-09-845-416-35
                                                                                                                                                                                                                                                          H
                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PUBCOMB.seq: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10789606
                                                                                                                                                                                                                                                          Description
                                                                                                                                                                                          Sequence 13, App.
Sequence 4, Appl.
                                                                                                                                                                       Sequence
                                              Sequence
                                                                                     Sequence
                                                                                                         Sequence
                                                                                                                                 Sequence
                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                   printed,
                                                               12, Appl
10, Appl
9, Appl
6, Appl
2, Appl
31, Appl
```

a																																	
45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
92.2	114	216	324	665.4	742	750.8	750.8	778	781.2	872	1307.4	1416	1416.6	1417.6	1417.6	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501
6.1	•		•	44.3	49.4	50.0	50.0	51.8	52.0	58.1	87.1	94.3	94.4	94.4	94.4	100.0	100.0	100.0	100.0		100.0	100.0	100.0	•	100.0	100.0	100.0	•	100.0	100.0	•	100.0	100.0
275	114	216	324	5106	16531	10302	10302	11096	10705	887	13815	1434	5417	4414	3446	14082	14082	14082	14069	14069	13957	13957	13957	12057	11443	11058	8689	5462	5339	5149	5060	4990	4966
16	17	17	17	17	15	17		7	17	17	17	10	17	10	10	17	17	17	17	17	17		ø	17	17	10	17	17	17	10	10	10	10
US-10-029-386-16813	-10-149-736	-10-149-736	-10-149-736	US-10-220-120-157	-10-101-510	-10-149-736	9-782-378A	-10-149-736	US-10-152-319A-1598	-10-149-	-10-149-736	-09-845-416	-10-149-736	-09-845-	-09-845-416	-10-342-887	-10-172-116	US-10-341-434-108	-10-342-887	-10-172-	US-10-149-736-1	-088-60	US-09-782-378A-22	-10-149-736	-10-149-736-	US-09-845-416-1	-10-149-736	-10-149-736-	9	-09-845-4	-09-845-416-	-09-845-416-	US-09-845-416-28
168:	45,	34,	Sequence 33, Appl	157,	667	е ч	23,	4,	15	35	Ņ	15	39	e 32,	e 14, i	e 981	981,	108,	434,	434	e 1,	2284	22,	47,	44,	۲	42,	41	40,	Sequence 27, Appl	е 36,	34,	Sequence 28, Appl

ALIGNMENTS

```
밁
                                                                           á
                                                                                                                            문
                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                      US-09-845-416-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Sequence 13, Application US/09845416 ; Publication No. US20030171312A1 ; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-845-416-13
                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 13
                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                 Query Match 100.0%; Score 1501; Best Local Similarity 100.0%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
                                                                                                                                                                                                                                                                                                                     TYPE: DNA ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                             LENGTH: 1821
                                                                                                                                                                                                                 1501;
121 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180
                                          363
                                                                                                                            303
                                                                                  61
                                                                  CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120
                                                                                                                          TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 362
                                        CTGACTGGCAGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 422
                                                                                                                                                     TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 60
                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                 ٥.
                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                         DB 10; Length 1821;
                                                                                                                                                                                                                 <u>,,</u>
                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                 ..
                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                 0
```

US-09-64-416-4 Sequence 4. Application US/09845416 PROBLEM 100 USCO30171312A1 REPERBORY PILLY DAWN SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE PILLS EPERBORY DAWN SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE PILLS EPERBORY DAWN SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE PILLS DAWN SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE PILLS DESIGNATION TO BE 10-30 CO-30 CO-777 UNDERSON SECULOTION UNDERS: USCO-64-28 SOFTWARE: DESIGNATION CO-30 CO-777 UNDERSON SECULOTION UNDERS: USCO-64-28 SOFTWARE: DAWN SO-64-28 SOFTWARE: Patentin Ver. 2.1 SEG DI NO 4 SEG DI NO 4 SEG DI NO 5 SCOTE 1501; DB 10; Length 2169; USCO-64-28 US-09-845-416-4 OUGANISM: Homo Sapiens OUGANISM: Hom	Db 1503 CTGCAGAAACTGCCAAAGCATCAGGCCAAATGTAACAATGTCAAAGAGTGTCCAATCATTG 1562 Qy 1261 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGAGTGTCTTTTTT 1320

Дb Ş В γŞ Дb Ś

Ś B Ś 밁 B

Ş 밁 Ş В Ś В 5 В δ B

Ş 뮹 5 ДЪ Ś В Ś 뫄 Ś g

Ś 밁 δ

밁

```
1731
                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                      1671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1131
                     1441
                                                                                                                                            1321
                                                                                                                                                                                                                                           1851
                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                          1791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1011
                                                                                                                1971
                                                                                                                                                                               1911
                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                         TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCTCCTTCTGCATGATTCTATCC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCCATCTCGCCAAACAAAGTGCCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                               CTGCAGAAACTGCCAAGCATCAGGCCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG 1260
                                                                                                                                                                                                                                                                                                                          ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGAGCACAACCAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTCTGAACTGGCTGC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTCTGCCAGGGTCCCTGGGAGA
AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                     CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA
                                                                       CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                    CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                          ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                         TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                      AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG 1730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGITCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC 1670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA 1550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC 1490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 1250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                           CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                1380
                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                                                                         1790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1130
                                                     2090
                                                                                                                  2030
                                                                                                                                                                               1970
                                                                                                                                                                                                                                              1910
                                                                                                                                                                                                                                                                                                           1850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1070
                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                            밁
                                                              Ś
                                                                                                 밁
                                                                                                                            S
                                                                                                                                                           닭
                                                                                                                                                                                         5
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
```

á

밁

8 8 8 8 8 8 8 8 8

망

```
; LENGTH: 3510
; TYPE: DNA
; ORGANISM: Homo &
US-09-845-416-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
US-09-845-416-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 1501; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 12, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2151
                                                                                                                                                                                                                            2399
                                                                                                                                                                                                                                                                                                               2339
                                                                                                                                                                                                                                                                                                                                                                                                       2279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1979
                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ရ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            G 1501
TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC 660
                                                                       GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 600
                                                                                                                                                                                                                                                                                                                                           GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                                                                                       CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 2150
                                                                                                                                                             GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                            GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                   GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                                                                                  GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                              CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCCTGAACACCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                        2518
                                                                                                                                                                                                                            2458
                                                                                                                                                                                                                                                                                                                    2398
                                                                                                                                                                                                                                                                                                                                                                                                       2338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2038
```

```
RESULT 4

US-09-845-416-10

Sequence 10, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANY: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCOD

TITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                DЬ
                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                     Д
                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                           3419
                                                                                                                                                                                                                                                                                                                                             3359
                                                                                                                                                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                                                                                                                                                                3299
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                        G.
                                                                                                                                                                                                                                         G
                                                                                                                                                                                                                                                                                 AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                              CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                ĊTĠĠŦĊĠĀĠŦŦĠĊĀĀĀĀĠĠĊĊĀŦĀĀĀĀŦĠĊĀĊŦĀŦĊĊĊĀŦĠĠŦĠĠĀĀŦĀŦŦĠĊĀĊŦĊĊĠĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATTCAGGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTGCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tecedade rectrice a artire e ra a ra a ra a decea da careción de contra de rectra de contra de c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rgaargritargatacgggacgaacaggaggarccgrgrccrgrctrtrtaaaacrgca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTTGĀGCCTGTĆĀĠCTGCĀTGTGĀTĠCCTTGGĀCCĀGCĀCĀĀCCTCĀĀGCĀĀĀĀTĠĀCĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             \GGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                           ENCODING
                                         A DYSTROPHY MINIGENE
                                        AND
                                        USE
                                                                                                                                                                                                                                                              3478
                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                  3418
                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2638
á
                                밁
                                                               Ş
                                                                                                  В
                                                                                                                             Ş
                                                                                                                                                                片
                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
```

```
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 10
LENGTH: 3531
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1501; Conser
                                                                      2720
                                                                                                                                     2660
                                                                                                                                                                                                   2600
                                                                                                                                                                                                                                                                   2540
                                                                                                                                                                                                                                                                                                                                  2480
                                                                                                                                                                                                                                                                                                                                                                                                  2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2360
                                         781
                                                                                                     721
                                                                                                                                                                    661
                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000
                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Н
                                                             AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
               AAGAGCACAACTTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                              TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                      GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                     TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACACCTCAAGCAAAATGACC
                                                                                                                                                                                            TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCT
                                                                                                                                                                                                                                                        GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                           GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                           GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                           ĠĀĠĊĊĀŦĊŦĊĠĊĊĀĀĀĊĀĀĀĠŦĠĊĊĊŦĀĊŦĀŦĀŦĊĀĀĊĊĀĊĠĀĠĀĊŦĊĀĀĀĊĀĀĊŦŦĠĊŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGGAAĞCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTGAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAAATTGCGCCTCTGAAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rédecearcrecrearreacrererecaaeareacereeaeaaaaereaaeereaaeecaerreeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGCGATCTCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cTGACTGGCAGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tretacgaaaackaggergaaggaggreaaraergagreggaaaaaarrgaacergeacteeg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%; silarity 100.0%; sometive 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1501;
Pred. No. 0;
0; Mismatches
CTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                              840
                                                               2779
2839
                                                                                                                                                                                           2659
                                                                                            780
                                                                                                                             2719
                                                                                                                                                            720
                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                        2599
                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                        2539
                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                       2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA

RESULT 5 US-09-845-416-9 ; Sequence 9, Application US/09845416 ; Publication No. US20030171312A1 ; GENERAL INFORMATION: APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF ; FILE REFERENCE: DE1142 ; CURRENT FILING DATE: 2001-04-30 ; PRIOR APPLICATION NUMBER: 60/200,777 ; PRIOR APPLICATION NUMBER: 60/200,777 ; PRIOR FILING DATE: 2000-04-28 ; NUMBER OF SEQ ID NOS: 36 ; SOFTWARE: Patentin Ver. 2.1 ; SEQ ID NO 9 ; LENGTH: 3858 ; TYPE: DNA ; ORGANISM: Homo sapiens US-09-845-416-9 QUETY Match Best Local Similarity 100.0%; Score 1501; DB 10; Length 3858; Best Local Similarity 100.0%; Pred. No. 0; Indels 0; Gaps 0;	Qy 1441 AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 1500	3260 darrichderholaddaerchaandcachrithadrathatdachrichdechanderichtrithe	3080 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAAGCCGCCCTCTTCCTAG 1141 ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCGGCCCTCTTCCTAG 1141 ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGGC	Db 2840 TGAATGTTTATGATACGGAACAGGAGAGAAGACAGGATCCGTGTCTTTTAAAACTGGCA 2899 Oy 901 TCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG
Oy 721 AGCCCATGATATCCTGCAGATTATTAATTGTTCACCACTATTTATGACCGCCTGGAGC	601 2927 661 2987	2747 GGGACTTTGGTCCAGAACTAAGTGCCCTACTATATCAACCACGTCTGAAACAACTTGCT 5 481 GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT 5 [Oy 241 GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCACGTTA 300	

De 211 GAGRANTITICACIOTETANA ACCIDANTA CONTROLOGO ANTONO CONTROLOG		Qy 181 TGGGCATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG 240	Qy 121 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180	Qy 61 CTGACTGGCAGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120	1 T 2468 T	Query Match 100.0%; Score 1501; DB 10; Length 3999; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	TYPE: DN ORGANISM S-09-845-41	; NUMBER OF SEQ ID NOS: 36 ; SOFTWARE: PatentIn Ver. 2.1 ; SEQ ID NO 6 ; LENGTH: 3999	; CURRENT APPLICATION NUMBER: US/09/845,416 ; CURRENT FILING DATE: 2001-04-30 ; PRIOR APPLICATION NUMBER: 60/200,777 ; PRIOR FILING DATE: 2000-04-29	; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DIA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE ; TITLE OF INVENTION: THEREOF ; FILE REFERENCE: DEI142	US-09-845-416-6 ; Sequence 6, Application US/09845416 ; Publication No. US20030171312A1 ; GENERAL INFORMATION:	Db 3827 Ġ 3827 RESULT 6	1501 G 1501		37		OP 3587 GATTCAGGTACAGGAĞTCTAAAĞCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT 3646 QY 1321 CTGGTCGAĞTTGCAAAAĞGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380	1261 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT	QY 1201 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG 1260	Db 3467 ACTGGATGAGACTCGAGTCCATGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 1200	3407
- # 3_3 6_6 6_6 6_6 6_6 6_6 6_9 6_9 6_9 8_8 8_8 8_8 8_6 6_6 6_6 6_6 6_6 6_6 6_6	1321	1261 3728	3 H	1141 3608	1081 3548	1021 3488	961 3428	ω		781 3248	721 3188	W	3068	3008	541	481 2948	421 2888	2828	2768 361	301	241

8 8 8 8 8 8 8	B 8 B 8 B	Query Best Match Qy Db	Ω ،	RESULT 7 US-09-845 ; Sequenc ; Publice ; GENERAC ; APPLIC ; TITLE ; TITLE	04 04 09 09 09 09 09 09 09 09 09 09 09 09 09	Q B
241 GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300	2711 CTGÁCTGGCÁGÁGÁÁÁÁÁTÁGÁTGÁGÁCCCTTGAÁAÁGÁCTCCÁGGÁACTTCAÁGÁGÁGÁCÁ 2770 121 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGAGACTCCÁAGGÁACTTCAÁGÁGGCCÁ 2770 121 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGGATCCAAGGGATCCTGGCAGCCCG 180 181 TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCCAGAAAAGTCAAGGCACTTCGAG 240 181 TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCCAGAAAAGTCAAGGCACTTCGAG 240 181 TGGGCGATCTCCTCATTGACTCTCTCCCAAGATCACCTCCAAGAAAGTCAAGGCACTTCGAG 2890	Query Match 100.0%; Score 1501; DB 10; Length 4182; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Mitmatches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Y 1 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 60	API API LEP	RESULT 7 US-09-845-416-2 US-09-845-416-2 ; Sequence 2, Application US/09845416 ; Publication No. US20030171312A1 ; GENERAL INFORMATION: ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: THEREOF ; TITLE OF INVENTION: THEREOF	3848 CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA 3907 1441 AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 1500	
8 8 8 8 8 8 8 8	S B Q B Q	B & B & B &	8 8 8 8 8	0 0 0 0 0	B & B & B &	D Q
3971 CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAAAAATTTCGAACCA 4030 1381 CTACATCAGGAGAAAGGTTTCGAGACTTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA 1440 4031 CTACATCAGGAGAAGATGTTCGAGACTTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA 1090 1441 AAAGGTATTTTGCGAAGCATCCCCGAATGGTCAACTAAAAAAAA		1021 AAATTCCAAGACRGTTGGGTGAACTTGCATCCTTTGGGGGCAGTAACATTCAGCCAAGTG	841 TGAATGTTTATGATACGGGACGAACAGGATCGGTGTCCTTCTTTTAAAACTGGCA	721 AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC	541 GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT	481 GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT

```
RESULT 8
US-09-845-416-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; LENGTH: 4476
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-31
                                                                                                                                                                                                                                          ф
                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                 S
                                                                   멍
                                                                                           δ
                                                                                                                       ф
                                                                                                                                                    δ
                                                                                                                                                                                     В
                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOPTWARE: PATENTIN Ver. 2.1
LENGTH. 4476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 31, Application US/09845416 Publication No. US20030171312A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1501; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2735
                                                                                                                                                                                           3215
                                                                                                                                                                                                                                                       3155
                                                                                                                                                                                                                                                                                                                 3095
                                                                                                                                                                                                                                                                                                                                                                           3035
                                                                                                                                                                                                                                                                                                                                                                                                                                     2975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2915
            3395
                                                                                                                                 3275
                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                             541
                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAAATTGCGCCTCTGAAAGAAGATGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                            GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                      GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                 GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                          TGGGCGATCTCCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                            TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCAACCTCAAGCAAAATGACC
                                                                                         TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                            GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                       GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                 GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
              TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                  GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1501; 1
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 4476;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                         3034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2794
                                                                                                                                                                                                                                                                                                                    3154
                                                                                                                                                                                                                                                                                                                                                                              3094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                 3454
                                                                                                                                     3334
                                                                                                                                                                600
                                                                                                                                                                                                3274
                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                           3214
                                                                        3394
                                                                                                       660
                                             720
                                     Sequence 30, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DNA SEQUENCE ENCODING A 1
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION UMBER: 60/200,777
PRIOR PILING DATE: 2000-04-28

NUMBER OF SEO. TD NOGE 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                               RESULT 9
US-09-845-416-30
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3575
                                                                                                                                                                                                                                                                          4235
                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                          4055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGAGCACAACTTGGTCAACGTCCCTCTCTCCGGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTGCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                       AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGITCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                           Q.
                                                                                                                                                                                                                                                                                                      ດ
                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>Actregateadadetregaaccecaercearegreregerececerectecaeacaeacregere</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                     AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                          Þ
                                                                                                                                            DYSTROPHY MINIGENE
```

4234

1440

4174

1380

4114

1320 3994 1260 3934 1200

4054

1140

3874

3814 1080 1020

3694 960

3754

3634

900

840

```
5
                                                                                                        á
                                                                                                                                   밁
                                                                                                                                                  5
                                                                                                                                                                        밁
                                                                                                                                                                                               δ
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                        S
                                                  뭐
                                                                중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 100.
Matches 1501; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 4498
TYPE: DNA
ORGANISM: Homo sapiens
-09-845-416-30
                                                                                                                                    3477
                                                                                                                                                                                                                         3357
                                                                                                                                                                                                                                                                  3297
                                                                                                                                                                                                                                                                                                           3237
                                                                                                                                                                                                                                                                                                                                                      3177
                                                                                                                                                                                                                                                                                                                                                                                                3117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2877
          3657
                                                   3597
                                                                                          3537
                                                                                                                                                                              3417
                                                                                                                                                                                                                                                                                                                                                                                                                                         3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2757
                                                                                                                                                       721
                                                                                                                                                                                                   661
                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                    361
                            901
                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                       GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAAATTGAACCTGCACTCCG
                                                  TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                     TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                  GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                      GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                            GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                   GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                                                                                                                                                                GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                           GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                  AAGAGCACAACTTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                 AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                        TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                          CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAAATTGCGCCTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                            AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                      AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                               TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 4498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                 3356
                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                     3236
                                                                                                                                                                                                                                                                                                                                                                                                                                          3116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3056
                               960
                                                   3656
                                                                        900
                                                                                            3596
                                                                                                                 840
                                                                                                                                      3536
                                                                                                                                                           780
                                                                                                                                                                               3476
                                                                                                                                                                                                     720
                                                                                                                                                                                                                         3416
                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                            3296
                                                                                                                                                                                                                                                                                                                                                                                                3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2816
          3716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
유
                                     당
                                                        S
                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
```

```
RESULT 10
US-09-845-416-29
(Sequence 29, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-29
                                                                                                                                                                                                                                                                           APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 50/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 29
LENGTH: 4825
                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                                       Matches
                                                                         3084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3897
                                                                                                                                                  atch 100.0%; Score 1501; cal Similarity 100.0%; Pred. No. 0; 1501; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                  61
                                                                       TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 3143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>م</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGAGCCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                           BB
                                                                                                                                                                                           10;
                                                                                                                                                     0,
                                                                                                                                                       Indels
                                                                                                                                                     <u>,</u>
                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
```

δ

|--|

δ 밁 5 В Ś В δ 뮹 δ 밁 Ş В δ В Ş 멍 5 B δ В S 밁 Ş 밁 Ş g δ 뫄 δ 밁 Ś Ъ Ś

```
Sequence 35, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 05/200,777
PRIOR PILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 35
LENGTH: 4848
TYPE: DNA
CORGANISM: Homo sapiens
US-09-845-416-35
       밁
                             Ş
                                                            밁
                                                                               5
                                                                                                           밁
                                                                                                                                          Ś
                                                                                                                                                                         밁
                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                        Š
                                                                                                                                                                                                                                                                                     뭐
                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 11
US-09-845-416-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             d
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                       Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1501; Conservative 0
       3407
                                                            3347
                                                                                                                   3287
                                                                                                                                                                         3227
                                                                                                                                                                                                                              3167
                                                                                                                                                                                                                                                                                       3107
                                 301
                                                                                       241
                                                                                                                                             181
                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4584 G 4584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                          13
CACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                 CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                     GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 3406
                                                                     GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                           TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                             TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                    CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                         CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                          CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                              Tretaegaaageagerigaegagereaaraetgagreegaaaaaarreaaeergeaereeg
                                                                                                                                                                                                                                                                                              TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                  CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ģ 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĊTACATCAGGAGAAGATGTTCGAGACTTTGCCCAAGGTACTAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATTCAĞĞTACAĞĞAĞTCTAAAĞCACTTTAATTATĞACATCTĞCCAAAĞÇTĞCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTT
                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                       Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                   DB 10;
                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                  Length 4848;
                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                    Gaps
3466
                          360
                                                                                 300
                                                                                                           3346
                                                                                                                                       240
                                                                                                                                                                   3286
                                                                                                                                                                                              180
                                                                                                                                                                                                                         3226
                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                               3166
                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1440
```

음 성

```
4307
                                                                                                                                                                                                                                                       4247
                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                     4127
                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                     4067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3527
                                                                                                                          4367
                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                             CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG
                                                                                                                                                                                                                                                                        ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                             TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG 1140
                                                                                                                                                                                                                                                                                                                                                                                     AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                           AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGITCAACAGGATITTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
               CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                          GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                          CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                         ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                     TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGAGCACAACCAATTTGGTCCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3766
4546
                                                                                                                                                                                                                                                                                                                                                                                       4186
                                                                                                                                                                                                                                                                                                                                                                                                                                                       4126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                              4486
                                                                                                                            4426
                                                                                                                                                                                          4366
                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                         4306
                                                                                                                                                                                                                                                                                                                         4246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4006
                                                                                                                                                                                                                                                                                         1200
```

밁

중 유

5 8 5 8 5

장 음 장 음 장

δ 밁 S 밁 δ В ર્ 밁 á 밁 र् 밁 Ś 뭐 S 밁

ર્શ

유 상 유

```
; SEQ ID NO 28
; LENGTH: 4966
; TYPE: DNA
; TYPE: DNA
; ORCANISM: Homo sapiens
US-09-845-416-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
US-09-845-416-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                ક
                                                     밁
                                                                            S
                                                                                                              망
                                                                                                                                  S
                                                                                                                                                                         밁
                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 28, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
APPLICAVE; XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local S
Matches 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity hes 1501; Conserv
                                                                                                                 3645
                                                                                                                                                                                                                                   3525
                                                                                                                                                                                                                                                                                            3465
                                                                                                                                                                                                                                                                                                                                                      3405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                    481
                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13
                                                                                                                                                                                                                                                                                                                                                                                                             CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G 4607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                  GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                    CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                             GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGACTGGCAGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
               GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 600
                                                                                                                                                                                         GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                             GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                     TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGACTGGCAGAGAAAAATAGATGAGAGCCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                   CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                        TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 4966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                      540
 3824
                                                          3764
                                                                                                                   3704
                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                            3644
                                                                                                                                                                                                                                    3584
                                                                                                                                                                                                                                                                                             3524
                                                                                                                                                                                                                                                                                                                                                        3464
                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                  3404
                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
```

0,

```
RESULT 13
US-09-845-416-34
US-09-845-416-34
; Sequence 34, Application US/09845416
; Publication No. US20030171312A1
; GENERAL INFORMATION:
; APPLICANT: XIAO, XIAO
; TITLE OF INVENTION: DNA SEQUENCE EN
                                                                                                                                      5
                                                                                                                                                                   80 A0 A0
                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                 Вb
                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                            뫄
                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뫄
                                                                                                                                            1501
                                                                                                                                                                                                                    4605
                                                                                                                                                                                                                                                                   4545
                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                   4485
                                                                                                                                                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                                  4425
                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                 4365
                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                4305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                       a-
                                                                                                                                               Q
                                                                                                                                                                               AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                               CTACATCAGGAGAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                             CTGGTCGAGTTGCAAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                            CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                         GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAG 1140
                                                                                                                                                                                                                            CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                            CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                            CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                           ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                   GATTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                            1501
                                                                                                                                                                                                                                                                                                               ENCODING
       ×
       DYSTROPHY
      MINIGENE
      AND
                                                                                                                                                                                        1500
                                                                                                                                                                                                                4664
                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                  4724
                                                                                                                                                                                                                                                              4604
                                                                                                                                                                                                                                                                                                              4544
                                                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                             4484
                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                            4424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOPTWARE: PATENTIN Ver. 2.1
SEQ ID NO 34
LENGTH: 4990
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-34
     밁
                     S
                                                    밁
                                                                        Ś
                                                                                                 밁
                                                                                                                       Ś
                                                                                                                                                   뭐
                                                                                                                                                                  Ś
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                 δõ
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                            뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Simi
Matches 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,
CURRENT FILING DATE: 2001-04-30
     4029
                                                   3969
                                                                                                   3909
                                                                                                                                                   3849
                                                                                                                                                                                                                                                 3729
                                                                                                                                                                                                                                                                                                3669
                                                                                                                                                                                                                                                                                                                                                3609
                                                                                                                                                                                                                                                                                                                                                                                              3549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3249
                          781
                                                                          721
                                                                                                                                                                        601
                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  _
AAGAGCACAACTTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                              AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                           GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                TCTTGAGCCTGTCAGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                            TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                              TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATC
                                                                                                                                                            TCTCAGCTTATAGGACTGCCATGAAAACTCCGAAGACTGCAGAAGGCCCTTTTGCTTTGGATC
                                                                                                                                                                                                                                              GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                             GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                            GGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                           GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                                                                                                                        GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                        CCACTITGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                              GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                          CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         °.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1501;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
 4088
                                                4028
                                                                                                3968
                                                                        780
                                                                                                                        720
                                                                                                                                               3908
                                                                                                                                                                                              3848
                                                                                                                                                                       660
                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                              3788
                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                             3728
                                                                                                                                                                                                                                                                                                                                            3668
                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                           3548
                                                                                                                                                                                                                                                                                                                                                                                            3608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3368
                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

LENGTH: 5060 TYPE: DNA ORGANISM: Homo sapiens S-09-845-416-36 Query Match Best Local Similarity 100.0%; Pred. No. 0;	CURRENT FILING DATE: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777 PRIOR FILING DATE: 2000-04-28 NUMBER OF SEQ ID NOS: 36 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 36	:-09-845-416-36 Sequence 36, Application US/09845416 Publication No. US20030171312A1 GENERAL INFORMATION: GENERAL INFORMATION: XIAO APPLICANT: XIAO, XIAO TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF	4749 G SULT 14		AAAGGTATTTTGCGAAGGATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG	OY 1321 CTGGTCGAGAGAGGCCATAAAATGCACTATCCCATGGTGGAATAATTGCACTCCGA 1380	181 GATTCAGGIACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT 4509 GATTCAGGIACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTT	1201 CIGCAGAAKCIGCCAAGCATICAGGCCAAATGATICATIG	1141 ACTGGATGAGACTGGAAACCCCAGTCCATGGTGGCTGGCCGGTCCTGCACAGAGTGGTGGCTG	1081 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG	OY 1021 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGAGTAACATTGAGCCAAGTG 1080	961 CANGTICANCAGGATTTTGTIGACCAGGGGGGGGGGGGCTCCTTCTGCATGATTCTATCG	901 TCATTTCCCTGTGTAAAGCACATTTIGGAAGCAAGTACAGATACCTTTTCAAGCAAGTGG	841 TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
Oy 961 CAAGTTCAACAGGATTTTGTGACCAGCCAGCCTGGGCCTCCTTCTGCATGATTCTATCC 1020	I GAATGITTATGATACGGGACGAACAGGGAGGATCCGGGTGTCCTGTGTTTAAAACTGGCA 4 TGAATGITTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA 4 TGATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG	4039 AGCCCATGGATATCCTGCAGATTATTATTTTTTTTTTTATTTTTTTT	QY 661 TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACC 720		Qy 541 GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 600	OY 481 GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCAGGAGACTCAAACAACTTGCT 540	OY 421 GGGACTTTGGTCCAGCACTCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480	QY 361 GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420	OY 301 CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCA 360	QY 241 GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300	OY 181 TGGGCGATCTCCTCATTGACTCTCCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG 240	OY 121 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180	QY 61 CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120	Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Oy 1 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAATTGAACCTGCACTCCG 60

Query Match Best Local Similarity 100.0%; Score 1501; DB 10; Length 5149; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Oy 1 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 60	PUBLICATION ON US20030171312A1 GENERAL INFORMATION: APPLICANT: XIAO, XIAO TITLE OF INVENTION: DAN SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777 PRIOR PILING DATE: 2000-04-28 NUMBER OF SEQ ID NOS: 36 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 27 LENGTH: 5149 TYPE: DNA ORGANISM: Homo sapiens	27 1441 27 1441 26 4759 26 4759 27 1501 28 1501 28 1501 28 1501 26 16 16 16 16 16 16 16 16 16 16 16 16 16	OY 1081 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGAGTCGAAGGGGCCCTCCTTCCT
5 8 5 8 8 8 8 8 8	0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	. & & & & & & & & & & & & & & & & & & &	. B & B & B & B & B & B & B & B & B & B
1081 TCCGAGCTGCTTCCAATTTGCTAATAATAATGCCAAGCGCCCTCTTCCTAG 1140 [AGCCCATGGATATCCTGCAGATTATTĀĀTTĞĀĊĞĀĊTĀŤŤĀŤĠĀĊĞĠĊŤĠĠĀĠĠ AAGAGCACAACAATTTGGTCAACGTCCCTCTCCGCGTGGATATGTĞTŤTĀŤĠĀĊĊĠĊĊŤĠĠĀĠċ AAGAGCACAACAATTTGGTCAACGTCCCTCTCCGCGTGGATATGTGTCTCTGAACTGGCTGC	41 GGACCATCCCAAAATGACAGGCCTCTACCAGTCTTTAGCTGACCTGACTGA	### TOGGCGATCTCCTCATTGACCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGAAATTGCCCTCGAAAGAAA

	Search completed: March 2, 2005, 20:00:41 Job time : 902.381 весв	Search completed: March Job time : 902.381 secs	ឧ
	4908 G 4908		da
	1501 G 1501		ð
4907	BAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 4907	b 4848	дb
1500		у 1441	Ş
4847	3 CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA 4847	b 4788	, Db
1440	CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA	у 1381	Ş
4787	CTGGTCGAGTTGCAAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA	b 4728	ַ שַל
1380	CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380	у 1321	δ

LINS REFERENCE

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
      O O
          222222221111111
222222211111111
26543210987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
      seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query
Match
      1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

1000

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-845-416-10_COPY_2000_3500
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       March 2, 2005, 04:16:40 ; Search time 261.233 Seconds (without alignments) 9401.765 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 ttctacgaaagcaggctgag.....gtgcagactgtcttagaggg 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Issued_Patents_NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/pcTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
      BB
                                      US-09-687-875A-1
US-09-949-016-2831
US-09-949-016-2805
US-09-949-016-2806
US-09-949-016-2806
US-09-949-016-2808
US-09-949-016-2810
US-09-949-016-2811
US-09-949-016-2813
US-09-949-016-2813
US-09-949-016-2813
US-09-949-016-2814
US-09-949-016-2815
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2828
US-09-949-016-2828
US-09-949-016-2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2405568
Sequence 1, Appli
Sequence 2831, Ap
Sequence 2804, Ap
Sequence 2805, Ap
Sequence 2806, Ap
Sequence 2807, Ap
Sequence 2808, Ap
Sequence 2801, Ap
Sequence 2811, Ap
Sequence 2811, Ap
Sequence 2813, Ap
Sequence 2814, Ap
Sequence 2815, Ap
Sequence 2817, Ap
Sequence 2817, Ap
Sequence 2817, Ap
Sequence 2818, Ap
Sequence 2817, Ap
Sequence 2818, Ap
Sequence 2819, Ap
Sequence 2819, Ap
Sequence 2819, Ap
Sequence 2821, Ap
Sequence 2821, Ap
Sequence 2823, Ap
Sequence 2824, Ap
Sequence 60, Appl
Sequence 60, Appl
Sequence 60, Appl
Sequence 10, Appl
Sequence 10, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٦,
```

						_		
5	음 성	유 성	음 성	음 성	3 8 0	US-	SES SES	
					Query N Best Lo Matches	APPLICAN TITLE OF FILE REF FILE REF FILE REF FURRENT CURRENT PRIOR AP PRIOR FI NUMBER O SOFTWARE EQ ID NO LENGTH: TYPE: D ORGANIS FEATURE FEATURE LOCATIO OTHER I LOCATIO OTHER I LOCATIC OTHER I LOCATIC OTHER I LOCATIC OTHER I LOCATIC	SULT 1 3-09-687 Sequence Patent I GENERAL APPLICE	00000000000000044440000000000000000000
241	181 3782	121 3722	61 3662	1 3602	Match ocal s 1501	OP IN OP IN OP IN OP APPLI APPLI APPLI APPLI APPLI FILIN FILIN NO 1 INO	7-875A Ce 1, No. 6 L INFO	750 984 988 988 988 988 988 988 988 988 988
=ଛ	7 7 7 7 7	CGGA	CTGA		i mi	Liu NVENTI NCE: NICA: NICA: NIG DATE SEQ II SEQ II	A-1 Applic 6544786 ORMATIO Viao,	
=¥	8–8	H-H	0 - 0	7-7	lari	TION OF THE PARTY)) 1786 (1786)	1155.
=3	GAT T	GA — 6	6-6	CGAAA CGAAAA	ወተ	Paul ON: MET ON: MET ON792 ION NUM ATE: 2 2 N NUMBE E: 1999 NOS: 2 In vers In vers j(289 ON: \$4 ON: \$4	X: at	らららららのつううちょうよくよくよう
 	3=3	3=3 3=3	CAGA	AAG 	rva	WETTO WE	ion	00000000000000000000000000000000000000
GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCCCAG	\$ <u></u> 5	GGACC	o—o	CAGG	100 100 tive	METHOD AJ 92 92 92 92 92 92 92 92 92 92 92 92 92	AL US/09687875A	81128 81128 81128 81128
g	H—H	н—н	AAAAAT AAAAAT	검프검	99	3. 1500/0 AN	096	4444444444444
<u>-</u> ≱	TGACTO	CAAGC	TAGA	GAGO	0		878	SS
—86 	3-3	a=a	ATC	GGAGG	Scor Pred Mi	т п	AI 1757	000000000000000000000000000000000000000
_ <u>`</u> 5	검무검	8=8	TGAGA	H—H	ig.	%CTOR 868 868	ALIGNMENT	
=======================================	CAAGA CAAGA	CAAG	⊙—o	CAAT	e 15 l. No	87	NME	949-016- 949-016- 949-016- 949-016- 949-016- 949-016- 949-016- 949-016- 949-016- 949-016- 949-016- 949-016-
	GAT	3—3 6—3	3=3		01; che	₽	NTS	000000000000000000000000000000000000000
=8	ATCAC	CTGAG	Ω—Ω ₩—₩	PACTGAGE PACTGAGE	8 · D	. ROD		888888797884444444444
= 6	3=3	肾二ဌ	CCTTGAAAGACTO CCTTGAAAGACTO	ਰੋ—ਰੋ ਰੋ—ਰੋ	4. 0	PRODUCING		55 55 55 55 55 55 55 55 55 55 55 55 55
<u>=</u> 8	ନ୍ୟ_ନ	ATC	2—5 5—5	\$-\$				
GACC	GAAAG GAAAG	GATCAAGGGATCCTGGC 	\$ <u>_</u> \$	TGGGAAAAAT TGGGAAAAAT	Lengt Indel	AND		
= 1	7-7	65—65 8—83	GAAC	7 2 2 3 3 4	gth els	· TRJ		000000000000000000000000000000000000000
=₽	à=à	중독중	岩三岩	8-8	59	S		444444444444444444444444444444444444444
	$\delta = \delta$	<u>a=a</u>	CAAG	0 0 0 0 0 0 0 0 0 0	52;	e RI		sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence sequence
= G	3=3	ล=ล	GAGGC	중=중	ຄ	TRANS FERR I NG		
GCTT	TCGAC	()-()	0 - 0	0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	арв			2821, AI 2826, AI 2827, AI 2829, AI 2829, AI 2830, AI 2830, AI 276, Appl 276, Appl 276, Appl 1359, AI 1359, AI 14574, I 14546, I 14546, I
—≱ ა	ო დ—დ	ด—ด ผ	א – א	ଘ ନ		TRANS		21, Ap 26, Ap 27, Ap 29, Ap 30, Ap 30, Ap 30, Ap 30, Ap 50, Ap 50, Ap 50, Ap 50, Ap 51, Ap 51
00	40 841	80 781	20 721	0 661	0,	S		000000000000000000000000000000000000000
						J.		

LICED 134

유성 밁 Ş 밁 Ś 뭐

```
4922
                                                                                                            4802
                                                                                                                                                         4742
                                                                                                                                                                               1141
                                                                                                                                                                                                       4682
                                                                                                                                                                                                                                                   4622
                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                  4562
                                                                                                                                                                                                                                                                                                                                              4502
                                                                                                                                                                                                                                                                                                                                                                                          4442
                                                                                                                                                                                                                                                                                                                                                                                                                                        4382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4142
                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4082
                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
         ĊŦĠĠŦĊĠĀĠŦŦĠĊĀĀĀĀĠĠĊĊĀŦĀĀĀĀŦĠĊĀĊŦĀŦĊĊĊĀŦĠĠŦĠĠĀĀŦĀŦŦĠĊĀĊŦĊĊĠĀ
                                                                      GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT 1320
                        CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                       GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG
                                                                                                    CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                  ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                              ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCAGAGAGTGGCTG
                                                                                                                                                                                              TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                            TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCTCTTCCTAG 1140
                                                                                                                                                                                                                                                         AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                          AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                        CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                     CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTCGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                     TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                              AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC 840
                                                                                                                                                                                                                                                                                                                                                                                  TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCCCATGGATATCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTCAGCTTATAGGACTGCCATGAAACTCCGGAAGACTGCAGAAGGCCCTTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĠĠĠĀĊĊĀŤĊĊĊĀĀĀĀŤĠĀĊĀĠĀĠĊŤĊŤĀĊĊĀĠŤĊŤŤŦĀĠĊŤĠĀĊĊŤĠĀĀŤĀĀŤĠŤĊĀĠĀŤ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ĠĠĠĀĊŤŤŤĠĠŤĊĊĀĠĊĀŤĊŤĊĀĠĊĀĊŤŤŤĊŤŤĊĊĀĊĠŤĊŤĠŤĊĊĀĠĠĠŤĊĊĊŤĠĠĠĀĠĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 3901
           4981
                                                       4921
                                                                                                   4861
                                                                                                                          1260
                                                                                                                                                  4801
                                                                                                                                                                       1200
                                                                                                                                                                                               4741
                                                                                                                                                                                                                                            4681
                                                                                                                                                                                                                                                                                         4621
                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                       4561
                                                                                                                                                                                                                                                                                                                                                                                   4501
                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                4441
                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                  Ś
                                         밁
                                                             Ś
                                                                                    밁
                                                                                                       Ş
                                                                                                                                 뮹
                                                                                                                                                   Ś
                                                                                                                                                                               멍
                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                유
                  421
                                                                                       882
                                         942
                                                              361
                                                                                                            301
                                                                                                                                   822
                                                                                                                                                          241
                                                                                                                                                                                 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5042
                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                          642
                                                                                                                                                                                                                                                                                                                       582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5102 Ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                 61
GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          - ရ
```

, G δ 멍 Ś 밁 Ś g Ś 밁 Ś Ъ Ş 밁 Ş В Ş 밁 5 밁 Ş 뭥 Ş 밁 S 멍 Ş В Ś 밁 Ş

```
Sequence 2831, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: MITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CLO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR ETLING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; LENGTH: 5627
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 2
US-09-949-016-2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative (
                                                                                                                                           CCACTTIGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCCTGAACACCA 360
                                                                                                                                                                                                                                                                                          GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                              GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                         GAGAAATTGCGCCTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCGATCTCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; Score 1499.4; pred. No. 0; o; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                              188
                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                             821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5041
```

중 음 성

밁

밁

```
1902
                                                                                                                                                                                                                           1842
                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                       1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1542
                                                                                                                                                                                                                                                                                                                                                                                                                         1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1122
                                                                                             1962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1062
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                     TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G 1501
                              ARAGGTATTTTGCGARGCATCCCCGARTGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 1500
                                                                                                              CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                                                                                                                                          GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCCATGGATATCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                             CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                           GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                         CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                            CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 1061
                                                                                                                                                                                                                           1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1241
                                                                                                                                                             1961
                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                           1841
                                                                                                                                                                                                                                                                                                                                                                                                                         1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1121
```

음 성 음 성 음

8 8 8 8 8 8 8

8 8 8 8

G 2082

```
PAtent NO. DOLASJS

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES

FILE REFERENCE: CLOO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-09-08

NUMBER OF SEQ ID NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FeatSEQ for Windows Version 4.0

SEQ ID NO 2832

LENGTH: 5627

TYPE: DNA

ORGANISM: Human

US-09-949-016-2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-09-949-016-2832
US-09-949-016-2832
; Sequence 2832, Application
; Patent No. 6812339
; Patent Normanaprion:
                                     밁
                                                                         ş
                                                                                                              밁
                                                                                                                                    δ
                                                                                                                                                                        밁
                                                                                                                                                                                                        S
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                               1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         atch 99.9%; Score 1499.4; Cal Similarity 99.9%; Pred. No. 0; 1500; Conservative 0; Mismatches
                                                                                                                                              481
                                                                                                                                                                                                                                               942
                                                                                                                                                                                                                                                                                                              882
                  601
                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                             822
                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               642
                                                                                                                                                                                                                                                                                                                                                                                                                                              762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGACTGGCAGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120
                                                 GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                                                                            GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGATGAGCTGGACCTCAAGCTGCGCCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                              GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                                                                                            CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTACGAAAGCAGGCTGACGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                              GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                  GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                             GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                              GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACA
                                                                                                                                                                                                                                                                                                                                                                             GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THEREOF
                                                                                                                                                540
                                                                                                                                                                               1061
                  660
                                                                                                                 1121
                                                                                                                                                                                                                                                 1001
                                                                                                                                                                                                                                                                                                                941
                                                                                                                                                                                                                                                                                                                                                                               881
                                                                                                                                                                                                                                                                                                                                                                                                                                               821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              761
```

```
RESULT 4
US-09-949-016-2804
                                                                                                                                                                                    Ś
                                                                                                                                                                                                           유왕
                                                                                                                                                                   밁
                                                                                                                                                                                                                                                               유
Sequence 2804, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
                                                                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                                                                           δÕ
                                                                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ф
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                    2022
                                                                                                                                                                                                                                                                      1962
                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                        1902
                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                          1842
                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                             1782
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                   Q-
                                                                                                                                                                                          G
                                                                                                                                                                                                                              AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                               AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                               CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                              CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                  CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                    GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                   GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTGCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCAGAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGAGCACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGAGCACAACAATTIGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AĞCCCATĞĞATATCCTĞCAĞATTATTAATTĞTTTĞACCACTATTTATĞACCĞCCTĞĞAĞC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACCACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                          1501
                                USES
                                                                                                                                                                                                               2081
                                                                                                                                                                                                                                       1500
                                                                                                                                                                                                                                                                 2021
                                                                                                                                                                                                                                                                                                                   1961
                                                                                                                                                                                                                                                                                                                                           1380
                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                       1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                    1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1241
```

```
Ş
                                                    밁
                                                                          δ
                                                                                                         밁
                                                                                                                                       Ş
                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: FBASESEQ for Windows Version 4.
SEQ ID NO 2804
LENGTH: 7070
                                                                                                                                                                          밁
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 1500; Conserv
                                                      2816
                                                                                                               2756
                                                                                                                                                                            2696
                                                                                                                                                                                                                                       2636
                                                                                                                                                                                                                                                                                                2576
                                                                                                                                                                                                                                                                                                                                                             2516
                                                                                                                                                                                                                                                                                                                                                                                                                      2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2276
                       781
                                                                                 721
                                                                                                                                             661
                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2156
                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   μ
AAGAGCACAACTTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                               AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                             GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCCAAACAACTTGCT 540
                                               AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                          TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                    TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATC
                                                                                                                                                                                     TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                             GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                 GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                        GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACCTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACTITGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCGATCTCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCGATCTCCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGACTGGCAGAGAAAAATAGAGTGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
```

2335 240 2275 180 2215 120 2155 60

780 2815 2755 660 2695

2635

480

2515

2575

420

2455

밁 δ 밁 δ 밁 δ 밁

```
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-908
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 2805
LEEGTH: 7070
TYPE: DNA
                                                                                                                                                                                                                                                                                          RESULT 5
US-09-949-016-2805
                                                                                                                                                                                                                                    Sequence 2805, Application Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Crai
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3116
                                                                                                                                                                                                                                                                                                                                                                                                              3536
                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                      <u>۾</u>
                                                                                                                                                                                                                                                                                                                                                                                ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGGATGAGACTGGAACCCCAGTCCATGGTGGTGGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                      3596
                                                                                                                                                                                                                                                                                                                                                                                 1501
                                                                                                                                                                                                                                                                                US/09949016
                                                                                                                                                                                                         ASSOCIATED
OF DETECTION AND
                                                                                                                                                                                                          USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3055
                                                                                                                                                                                                                                                                                                                                                                                                               3595
                                                                                                                                                                                                                                                                                                                                                                                                                                          1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2935
                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Human US-09-949-016-2805
                   δ
                                        밁
                                                                        Ś
                                                                                                       밁
                                                                                                                            Ś
                                                                                                                                                             밁
                                                                                                                                                                                        5
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2096
                                                                                                         2936
                                                                                                                                                                                                                         2816
                                                                                                                                                                                                                                                                                   2756
                                                                                                                                                                                                                                                                                                                                          2696
                                                                                                                                                                                                                                                                                                                                                                                                  2636
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2516
                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                      961
                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGACTGGCAGAGAAAAATAGAGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
    CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                        AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                         TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                               GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                               TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                  AAGAGCACAACTTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                  AAGAGCACAACCAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                         AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                  TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                   GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCA
                                                 TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                              960
                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                        1020
                                                                                                                                       900
                                                                                                                                                                  2935
                                                                                                                                                                                              840
                                                                                                                                                                                                                            2875
                                                                                                                                                                                                                                                                                                                                            2755
                                                                                                                                                                                                                                                                                                                                                                                                     2695
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2155
                                                                                                            2995
                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                   2815
                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
```

S

음 중

밁 Ş 밁 δ 문 S 8 र् 망 र् 밁 δ 밁 ð

RESULT 6 US-09-949-016-2806 ; Sequence 2806, Application US/09949016 ; Sequence 2806, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: AUTH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ; TITLE OF INVENTION: AUTHOR OF DETECTION AND USES THEREOF ; TITLE OF INVENTION. ; TITLE OF INVENTIO	Db 3056 CAAGTTCAACAGGATTTTGTGACCAGGCCGAGGCTGGCCTCCTTCTGCATGATTCTATCC 3115 Qy 1021 AAATTCCAAGACAGTTGGGTGAAGTTGCATGATCCTTTTGGCGCAGGTAACATTTTGCAACTG 1080 3116 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTTGGGGGCAGTAACATTTGGCCAAGTG 1080 1081 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAAGTGATCCAAGTG 3175 Qy 1081 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAAGTGATCCAAGTG 3175 Qy 1141 ACTGGATGAGCTGCAATTTGCTAATAATAAGCCAGAAGTGCACCCTCTTCCTAG 1140 Db 3176 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAAGTGCACCCCCTTTCCTAG 2335 Qy 1141 ACTGGATGAGACTGCAACCCCAGTTCCATGGTTGGCCCGTCCTGCAAGAGTGGCTG 1200 Db 3236 ACTGGATGAGACTGCAACCCCAATTTGTTAACATCTGCAAAGAGTGCCCAAGTGGCTG 3295 Qy 1201 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAAGTGTCCAATCATTG 1260 Db 3296 CTGCAGAAACTGCCAAGCCATCAGGCCAAATGTAACATCTGCCAAAGAAGTGTCCAATCATTG 1260 1141 ACTGGATGAGGAGATCTAAAGACCATTAAATTAAGAATCTTGCCAAAGAAGTGTCCAATCATTG 1260 1200 TCTGCAGAAACTGCCCAAGCATCAGGCCAAATGTTAACATCTGCCAAAGAAGTGTCCAATCATTG 1260 1210 TTGCAGAAACTGCCCAAGCATCAGGCCAAATGTTAACATCTGCCAAAGAATATTTTGCAATCATTT 1320 1221 CTGCCAGAAACTGCCCAAAGAGCCATTAAATTAAGAACTGTCCCAAAGATCATTTTTTT 1320 1222 TCGTCCAGAAAACTGCCCAAAAGGCCATTAATTATGAACATCTTGCCAAAGATCTTTTTTT 1320 1223 TCGTCAGGTTACAGGAGGTCTAAAATGCACTTTAATTATGAACATCTTGCCAAAGATCTTTTTTT 1320 1224 TCGTTCAGGTACAAAGGCCATTAAAATGCACTTTAATTATGAACATATTTCCAAACACTTTCCAA 13415 1225 TCGTCCAGAAAGGCCATTAAAATGCACTTTTCCCATGGTGGAAAATTTTCCAAACACAATTTTCCAAACAATTTTCCAAACAAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAAATTTTCCAAACAATTTTCCAAACAATTTTTCCAAACAATTTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAAATTTTCCAAACAATTTTCCAAACAAATTTTCCAAACAATTTTCCAAACAATTTTCCAAACAAAATTTTCCAAACAATTTTCCAAACAAACAAAATTTTCCAAACAATTTTCCAAACAATTTTCCAAAAAA
Db 2696 rcccadecrivialadecolicididididididididididididididididididi	b 215 b 221 b 221 b 227 y 18 y 24 y 301 y 301 y 301 y 361 6 2396 5 2456 6 2576

N	Db 2216 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 2275 OY 181 TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG 240	QY 121 CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180	61 CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA	AGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 60 	Query Match 99.9%; Score 1499.4; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	; SEQ ID NO 2807; ; LENCTH: 7070 ; TYPE: DNA; TYPE: DNA; ORGANISM: Human IIS. OGGANISM: Human	PRIOR FEILLENIUM NUMBER: 00/231,430 PRIOR FILING DATE: 2000-09-08 NUMBER OF SEQ ID NOS: 207012 SOFTWARE: FastSEQ for Windows Version 4.0		FILE REFERENCE: CL001307 CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRICE REFERENCE: CANADA TEE	; FAIGHT NO. 6612339; ; GENERAL INFORMATION: ; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED	RESULT 7 US-09-949-016-2807 ; Sequence 2807, Application US/09949016	DP 3296 G 3296	1441 AA 3536 AA	301 CIRCAICAGEAGAIGHICEACHACHACHACHACHACHACHACHACHACHACHACHACHA	1321 CIGGI CGAAGI ISCANAAGGCCA IAAAAA IGCACI AI CCCA IGGI GGAAIAA IGCACI CGA	121 GATICAGGIACAGGAGICIAANGCACIIIAIIAIGACAICIGCEAAAGCIGCIIIIIII 3356 GATICAGGIACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT 121 GAGGTACAGGAGTCTAAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTT	3296 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG	Db 3236 ACTGGATGAGACTGGAACCCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 3295 Ov 1201 CTGCAGAAACTGGCCAAGCATCAGGCCAAATGTTAACATTGCCAATGATGTCCAATCATTG 1260
Db 3356 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTT 3415 Oy 1321 CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380	1261 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTT	Qy 1201 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG 1260	OY 1141 ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGCCGTGCCGTCCTGCACAGAGTGGCTG 1200	Qy 1081 TCCGGAGCTGCTTCCAATTTGCTAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG 1140	Qy 1021 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG 1080	Oy 961 CAAGTTCAACAGGATTTTGTGACCAGGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC 1020	Qy 901 TCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG	Qy 841 TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCTTTTAAAACTGGCA 900	OY 781 AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGGGTGGATATGTGTCTGAACTGGCTGC 840	OY 721 AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC 780	Qy 661 TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC 720	Qy 601 TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC 660	Qy 541 GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACATAATGTCAGAT 600	OY 481 GAGCCATCTCGCCAAACAACTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT 540	Oy 421 GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480	Oy 361 GATGGAAGCTTCTGCAGGTGGCCGTCGAGGTCAGGCAGCAGCATGAAGCCCACA 420	Qy 301 CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA 360	Db 2336 GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 2395

all ageccarcoccanachamic control contr	Db 2336 GAGAAATTGCGCCTCTGAAAGAAACGTGAGCCACGTCAATGACCTTGCCAGCTTA 300 Qy 301 CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCGAAGACACCA 360		Each Local Co. Best Local Co. Matches 1500 2096 61 2156	DATE: 2000-10-03 ATTON NUMBER: 60/: DATE: 2000-09-08 DATE: 2000-09-08 DATE: 207012 StSEQ for Windows man iman iman	RESULT 8 US-09-949-016-2808 i Sequence 2808, Application US/09949016 i Patent No. 6812339 i GENERAL INFORMATION: APPLICANT: VENYER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ITTLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF IFILE REFERENCE: CL001307 CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT APPLICATION NUMBER: 60/241,755 PRIOR APPLICATION NUMBER: 60/241,755	Db 3416 CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 3475 Qy 1381 CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAACAAATTTCGAACCA 1440
	3416 1381 3476 1441 3536	1201 3296 1261 3356 1321	1021 3116 1081 3176 1141 3236	2936 2936 2996 961	2696 661 2756 721 2816 781	2516 481 2576 541 2636

밁

2755

```
Sequence 2803, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CLOO1307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FASTSEQ for Windows Version 4.0

TVER: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-949-016-2809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 99.5
Best Local Similarity 99.5
Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
ORGANISM: Human
-09-949-016-2809
                                   2636
                                                                                                         2576
                                                                                                                                                                            2516
                                                                                                                                                                                                                                                   2456
                                                                                                                                                                                                                                                                                                                         2396
                                                                                                                                                                                                                                                                                                                                                                                              2336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2096
                                                                                                                                             481
                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        μ
                                                                                                                            GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                      CACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                              GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCCCCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
 TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC 660
                                                         GGGACCATCCCAAAATGACAGAGCTCTTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                   GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                     GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACA
                                                                                                                                                                                                                                                                           GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                              CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                         GAGCCATCTCGCCAAACAAAGTGCCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                    600
                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                     2695
                                                                                                         2635
                                                                                                                                             540
                                                                                                                                                                            2575
                                                                                                                                                                                                                                                   2515
                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                         2455
                                                                                                                                                                                                                                                                                                                                                                                              2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                      RESULT 10
US-09-949-016-2810
                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뫄
Sequence 2810, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: BOLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                 3416
                                                                                                                                                                                                 3596 G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                    AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCTTĞAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC 720
                                                                                                                                                                                                                                                                                                                                                                            CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                               CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                 3596
                                                                                                                                                                                                                                  1501
                    AND USES
```

3175

3115

960

2995 900

3055

840

2875 780 2815

2935

S

밁 δ 밁 δ

S 밁 δ 밁

В ð 밁 ર્ 문 र् 밁 δ 당 δ 밁

THEREOF

1500

3535 1440 3475

3415

1320 3355 3295

```
멍
                                                                         Ś
                                                                                                          밁
                                                                                                                                Ś
                                                                                                                                                                  В
                                                                                                                                                                                         5
                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; LENGTH: 7070
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/949,016
CUBRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PRILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-09-08
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SEQ ID NO 2810
LENGTH: 7070
TYPE: NMA
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                                                                          2756
                                                                                                                                                                    2696
                                                                                                                                                                                                                            2636
                                                                                                                                                                                                                                                                                      2576
                                                                                                                                                                                                                                                                                                                                              2516
                                                                                                                                                                                                                                                                                                                                                                                                        2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2336
                                                                          721
                                                                                                                                    661
                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2216
                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGGACTCCAGGAACTTCAAGAGGCCA 120
          AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                  TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                         AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                               TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATC
                                                                                                                                                                                                                 GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 2695
                                                                                                                                                                                                                                                                                             GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                       AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                          TCTCAGCTTATAGGACTGCCATGAAACTCCGGAAGACTGCAGAAGGCCCTTTTGCTTGGATC
                                                                                                                                                                                                                                    GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 600
                                                                                                                                                                                                                                                                            GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                    GGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                    GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                             GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                               GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCACTTTGGGCÁTTCAGCTCTCACCGTÁTAACCTCAGCACTCTGGAAGACCTTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCCTGAACACCA 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGAAATTGCGCCTCTGAAAGAAGGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCGATCTCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCGATCTCCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĊŦĠĀĊŦĠĠĊĀĠĀĠĀĀĀĀĀŤĀĠĀŦĠĀĠĀĊĊĊŦŦĠĀĀĀĠĀĊŦĊĊĠĠĠĀĀĊŦŤĊĀĀĠĀĠĠĊĊĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 1499.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 7070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                        2875
                                                                   780
                                                                                                                            720
                                                                                                                                                         2755
                                                                                               2815
                                                                                                                                                                                                                                                                                                                                      2575
                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                            2635
                                                                                                                                                                                                                                                                                                                                                                                              2515
                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
Sequence 2811, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 2811

LENGTH: 7070
                                                                                                                                                                                                                                                                                    RESULT 11
US-09-949-016-2811
                                                                                                                                                                                                                                                                                                                                                                                                         뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                         3536
                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                              Q.
                                                                                                                                                                                                                                                                                                                                                                          - 😱
                                                                                                                                                                                                                                                                                                                                                                                                 AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĊTĠĠŦĊĠĀĠŦŦĠĊĀĀĀĀĠĠĊĊĀŦĀĀĀĀŦĠĊĀĊŦĀŦĊĊĊĀŦĠĠŦĠĠĀĀŦĀŦŦĠĊĀĊŦĊĊĠĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAATGTTTATGATACGGGACGACGACGGGGATGCGTGTCCTGTCTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1501
```

3595

3475

3415 1320 3355 1200

3235

3175 1080 3115 1020 3055 960 2995

```
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                     망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                   망
                                          ş
                                                                   밁
                                                                                    र्
                                                                                                               B
                                                                                                                                      5
                                                                                                                                                                밁
                                                                                                                                                                                S
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                  2876
                                                                                                                                                                 2816
                                                                                                                                                                                                              2756
                                                                                                                                                                                                                                                            2696
                                                                                                                                                                                                                                                                                                           2636
                                                                                                                                                                                                                                                                                                                                                          2576
                                                                                                                                                                                                                                                                                                                                                                                                        2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                       2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2096
                      2996
                                                                    2936
                                                                                                                                        781
                                                                                                                                                                                      721
                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
961
                                            901
                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                       GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                         TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                       GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                         GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                       GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGCGATCTCCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGACTGGCAGAGAAAATAGATGAGACCCCTTGAAAGACTCCGGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA
CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC 1020
                                                                                 TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA 900
                                                                                                                                                                                                                                                                                                            GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                      TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                 AGCCCATGGATATCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                      AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC 780
                                                                                                                                                                                                                                                              TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1499.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 120
                                                                                                                   2935
                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                           2635
                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                          2575
                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                          2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2155
                                                                      2995
                                                                                                                                                                  2875
                                                                                                                                                                                                                2815
                                                                                                                                                                                                                                                             2755
                                                                                                                                                                                                                                                                                                            2695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
```

```
SEGURAL INFORMATION:

PATENT NO. 6812339

PATENT NO. 6812

PATENT POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

PATENT POLYMORPHISM: 60/09/949,016

CURRENT APPLICATION NUMBER: 60/241,755

PATENT PILING DATE: 2000-10-20

PATENT APPLICATION NUMBER: 60/237,768

PATENT APPLICATION NUMBER: 60/237,768

PATENT APPLICATION NUMBER: 60/237,768

PATENT APPLICATION NUMBER: 60/231,498

PATENT APPLICATION NUMBER: 60/231,758

PATENT APPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
밁
                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                    Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081 TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3056 CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTTGGCCTCCTTCTGCATGATTCTATCC
  2096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3116 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3596 Ġ
  TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCAGAAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                            TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 3595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                99.9%;
                                                                                                       Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                               DВ
                                                                                                                                                               4
                                                                                                                                                            Length
                                                                                                                                                               7109
                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3295
                                                                                                             0
```

2816 AGCCCATGGATATTGGTCAGACTATTATAGACGCCTGGAGC 780 2816 AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC 780 2816 AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC 2875 781 AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTTGAATTGTGTCTCAACTGGCTGC 840 2876 AAGAGCACAACATTTGGTCAACGTCCCTCTCTGCGTTGATATGTGTCTCAACTTGGCTGC 840 2876 AAGAGCACAACATTTGGTCAACGTCCCTCTCTGCGTTGATATGTGTCTCAAACTTGGCTGC 840 2876 AAGAGCACAACATTTGGTCAACGAGGAGATCCGTGTCCTTTTTAAAACTTGGCA 2935 841 TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTTTTTAAAACTTGGCA 2935 841 TGAATGTTTATGATACGGGACCAACAGGGAGGATCCGTGTCCTTTTTAAAACTTGGCA 2935 901 TCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACCGTGTCCTTTTCAAGACAAGTTGG 960 2936 TCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACCTTTTCAAGCAAG			61 CTGACTGGCAGAAAAATAGATGAGACCCTTGAAAGACTTCCAGGAACTTCAAGAGGCCA 120
FRANK MEPLICATION NUMBER: 60/231,498 FRANK MEPLING DATE: 2000-9-08 NUMBER OF SEQ ID NOS: 207012 SEQ ID NOS: 207012 SEQ ID NOS: 207012 SEQ ID NO 2813 SEQ ID NO 2813 SEQ ID NO 2813 LENGTH: 7109 TYPE: DNA	RESULT 13 US-09-949-016-2813 US-09-949-016-2813 ; Sequence 2813, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION: APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ; CURRENT APPLICATION NUMBER: US/09/949,016 ; CURRENT FILING DATE: 2000-04-14 ; PRIOR APPLICATION NUMBER: 60/241,755 ; PRIOR APPLICATION NUMBER: 60/241,755 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR FILING DATE: 2000-10-20 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR APPLICATION NUMBER: 600-10-20 ; PRIOR APPLICATION NUMBER: 60/237,768	Db 3416 CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAAATATTGCACTCCGA 3475 Qy 1381 CTACATCAGGAGAAGATGTTCGAGGACTTTGCCAAGGTACTAAAAAACAAATTTCGAACCA 1440	Db 3236 ACTGGATGAAAACTGCCAAGCATCAAATGCACTATATTATGACATCTGCCAAAGACTGCTATTTTTT 3415 Oy 1201 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCCAAAGAGTGCCAATCATTG 1260 Db 3296 CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCCAAAGAGTGTCCAATCATTG 3355 Oy 1261 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT 1320 Db 3356 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTTT

· 오 용 용 용 용 용

B &

유 성

망 γŞ 뮍 Ş В

DЪ Ş

Ś 밁 Ş Ś Дb

뭥 Ś

Ş

유

Ъ 성 유

8 B 8

망

성 음 성

& 유

Ş

밁

8 8 8 8 8

중 음 중 음

```
3056
  1321
                                                                                                                                                                                                                                                                                                                                                                                3116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2456
                                                                                 1261
                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                             3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2336
                                                                                                                                                                  1201
                                                                                                                                                                                                            3236
                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC 1020
CTGGTCGAGTTGCAAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCCCATGGATATCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTTGAGCCTGCAGCTGCATGTGATGCCTTGGACCAGCACACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA 360
                                         GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                               CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                   CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCCAATCATTG
                                                                                                                                                                                                            ACTGGATGAGACTGGAACCCCCAGTCCATGGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                    ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG 1200
                                                                                                                                                                                                                                                                                                                                                                                  AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                        AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGTTCAACAGGATTTTGTGACCAGGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC 2755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA 2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAAATTGCGCCTCTGAAAGAGAAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                               TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                    TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG 1140
                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                  3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2395
                                         3415
                                                                                                                             3355
                                                                                                                                                                                                            3295
                                                                                                                                                                                                                                                                                               3235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2515
```

8 8 8 8 8 8 8 8

```
APPLICATE VENTER, J. Craig et al.
APPLICANT VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: FRANCESEQ for Windows Version 4.0
SEQ ID NO 2814
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 14
US-09-949-016-2814
밁
                     S
                                                               밁
                                                                                        δ
                                                                                                                                밁
                                                                                                                                                            ঠ
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2814, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
 2456
                                                                                                                                  2336
                                                                                                                                                                                                     2276
                                                                                                                                                                                                                                                                      2216
                                                                                                                                                                                                                                                                                                                                         2156
                                                                                                                                                                                                                                                                                                                                                                                                        2096 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3596 G 3596
                                                                                                                                                                   241
                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                           1 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           G 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACA 420
                                                                 CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCCTGAACACCA 360
                                                                                                                                                     GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                         CTGACTGGCAGAGAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCA
                                                                                                                                                                                                                                                                                                                                                            CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTACÁTCAGGAGAAGATGTTCGAGACTTTGCCAAGGTACTAAAAAAACAAATTTCGAACCA 1440
CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                         CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                    GAGAAATTGCGCCTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA
                                                                                                                                                                                                     TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                     TGGGCGATCTCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1499.4; Pred. No. 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3475
                                                                  2455
                                                                                                                                    2395
                                                                                                                                                                                                     2335
                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                        2275
                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                          2215
                                                                                                                                                                                                                                                                                                                                                                                                            2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3535
                                                                                                                                                                                                                                                                                                                                                                                                                                             60
```

```
1381
                                                                                                                                                                                                                                                                                                                                                                                                         3416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
G 1501
                                                                                                                                                                                                    AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTAGAGG
                                                                                         AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTTTAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                  CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGTCGAGTTGCAAAAGGCCATAAAATGCACTATCCCATGGTGGAATATTGCACTCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                crecagaaacreccaaecarcaeeccaaareraacarcrecaaaeaerereccaarcarre
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGAAACTGCCAAGCATCAGGCCAAATGTAACATCTGCAAAGAGTGTCCAATCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTGGATGAGACTGGAACCCCAGTCCATGGTGTGGCTGCCCGTCCTGCACAGAGTGGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCCGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCGGAGCTGCTTCCAATTTGCTAATAATAAGCCAGAGATCGAAGCGGCCCTCTTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGTTCAACAGGATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          actigiat da da cresa a construcción de constru
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rdaatertrateariacegeaceaacaegeaegarcegrerectrittaaaaciegea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAATGTTTATGATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               aadadcacaacharrirdercaacerecerererederedararerereaacrederec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGAGCACAACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCCATGGATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        retreagectere a de circa de la recentra de la composição de la composição de la recentra de la recentra de la composição de l
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCTCAGCTTATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTTGCTTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                            1500
                                                                                                                                                                                                         3535
                                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                                                                                   3475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2575
```

밁 Ş 문 Ş ДЬ Ś 뮵 δ 문 S 뫄 Ś Вb Ş 밁 Ś В Ś 밁 5 В δ 뫄 δ 맑 Ş В 5 В Ś В 5 뮍 δ ₽

```
RESULT 15

(US-09-949-016-2815)

Sequence 2815, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

TITLE OF INVENTION: FOLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

CREATISM: Human

US-09-949-016-2815
            밁
                                   Ş
                                                                      밁
                                                                                          Ś
                                                                                                                             밁
                                                                                                                                                       Ś
                                                                                                                                                                                          В
                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                   당
                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 1500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
           2636
                                                                    2576
                                                                                                                               2516
                                                                                                                                                                                          2456
                                                                                                                                                                                                                                                   2396
                                                                                                                                                                                                                                                                                                            2336
                                                                                                                                                                                                                                                                                                                                                                         2276
                                                                                                                                                                                                                                                                                                                                                                                                                                  2216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2156
                                                                                                 481
                                                                                                                                                            421
                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2096 Trchaccaaadcaccicacdaccacaaracrcaaraccicaaaraccicaaaraccicaacciccc
                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 TTCTACGAAAGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCG
GGGACCATCCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGAT 600
                                                            GAGCCATCTCGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                            GAGCCATCTCGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCT
                                                                                                                     ĠĠĠĀĊŦŦſĠĠŦĊĊĀĠĊĀŦĊŦĊĀĠĊĀĊŦŦŦĊŦŦŦĊĊĀĊĠŦĊŦĠŦĊĊĀĠĠĠŦĊĊĊŦĠĠĠĀĠĀ
                                                                                                                                       GGGACTTTGGTCCAGCATCTCAGCACTTTCTTTCCACCGTCTGTCCAGGGTCCCTGGGAGA
                                                                                                                                                                                GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA
                                                                                                                                                                                                  GATGGAAGCTTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                          CACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGACTGGCAGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCA 120
                                                                                                                                                                                                                                                           CCACTTTGGGCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGAGCCTGAAGACCC 360
                                                                                                                                                                                                                                                                                                 GAGAAATTGCGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 2395
                                                                                                                                                                                                                                                                                                                   GAGAAATTGCGCCTCTGAAAGAAGACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTA 300
                                                                                                                                                                                                                                                                                                                                                                                 TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGATGAGCTGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                              TGGGCGATCTCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAG
                                                                                                                                                                                                                                                                                                                                                                                                                       GGATGAGCTGACCTCAAGCTGCGCCAAGCTGATCAAGGGATCCTGGCAGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ด-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99.9%; Score 1499.4;
99.9%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>;</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                       540
                                                                                                                     2575
                                                                                                                                                  480
                                                                                                                                                                                                                                          2455
                                                          2635
                                                                                                                                                                                2515
                                                                                                                                                                                                                                                                                                                                                              2335
                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                         2275
                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
```

음 성 .

B 8

음 성

음 성

음 성

AAAGGTATTTTGCGAAGCATCCCCGAATGGGCTACCTGCCAGTGCAGACTGTCTT G 1501 0 3596	CTACATCAGGAGAAGATGTTCGAGACTTTGCCAAC	1261 GATTCAGGTACAGGAGTCTAAAGCACTTTAATTATGACATCTGCCAAAGCTGCTTTTTT 1320	1141 ACTGGATGAGACTGGAACCCCAGTCCATGGTGGCTGGCCGTCCTGCACAGAGTGGCTG 1200	1021 AAATTCCAAGACAGTTGGGTGAAGTTGCATCCTTTGGGGGCAGTAACATTGAGCCAAGTG 1080	901 TCATTTCCCTGTGTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG		
	TOTTGAGCCTTCTAACTGCATCTATATTGTTTGACCAGCCAG	756 TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGAACCAGCACAACCTCCAACCTCCAGCACAAATGACCCTGAGCCTGCAGATTATTAATTGTTTGACCACCACCAACCA		756 TCTTGAGCCTGTCAGCTGCATGTATTATTGTTTGACCAGCTAGTTTATAGACCGCCTGGAGC 756 TCTTGAGCCTGTCAGCTGCATGTGATGCCTTGGACCAGCAAACCACAATGACC 757 TCTTGAGCCTGTCAGCTGCAGGATTATTATTGTTTGACCAGCAACCAAC	TGAATGTTTATGATACGGGACGAACAGGGAACAGCCTCTTCTTTAAAACTGGCA 299	THIS CONTROL OF THE ABSTRANCE CANADATITICAL CONTROL OF THE ABSTRANCE CONTROL OF THE ABSTRANCE CANADATITICAL CONTROL OF THE ABSTRANCE CONTROL	

중 음 중

음 성

음 성

Search completed: March 2, 2005, 07:48:56 Job time : 268.233 Becs 밁

밁

무 왕 물

Ś

B 8

밁

	•			
•				

•3

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - nucleic search, using sw model
  0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    92:
                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                      11499.4
1499.4
1499.4
1499.4
1499.4
1499.4
1499.4
1499.4
1499.4
1499.4
1499.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B B
                                                                                                                                                                                                                                                                                                                    1499.4
1499.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-845-416-9_COPY_2000_3500
                                                                                                                                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                               100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    March 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IBBued_Patents_NA:*

| (cgn2_6/ptodata/1/ina/5A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/6A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/6A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/6A_COMB.seq:*
| (cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
| (cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
| (cgn2_6/ptodata/1/ina/backfIles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tcaacattaggtcccatttg.....gaaccccagtccatggtgtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Copyright
                                                                                                                                                                                                                                                                                                                                                                         Length
 2005, 04:16:40 ; Search time 261.233 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 5.1.6 (c) 1993 - 2005 Compugen
                                                                                                                                                                                                                                                                                                                                                                         BB
            US-09-687-87-81
US-09-949-016-2831
US-09-949-016-2804
US-09-949-016-2806
US-09-949-016-2807
US-09-949-016-2807
US-09-949-016-2810
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2819
US-09-949-016-2821
US-09-949-016-2822
US-09-949-016-2822
US-09-949-016-2822
US-09-949-016-2823
US-09-949-016-2823
US-09-949-016-2823
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2823
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
US-09-949-016-2824
                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (without alignments)
9401.765 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ltd.
                                                                                                                                                                                                                                                                                                                                                                         Description
                                      Sequence
                                                                                                                                                                     Sequence
Sequence
Sequence
                                                                                                                                                                                                                           Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                             Sequence
1, Appli
2831, Ap
2831, Ap
2832, Ap
2804, Ap
2806, Ap
2807, Ap
2807, Ap
2811, Ap
2812, Ap
2823, Ap
2823, Ap
2825, Ap
20, Appl
```

45	44	43	42	41	40	39	38	37	36	3 5	34	ω u	32	31	30	29
271.8	271.8	271.8	271.8	271.8	271.8	271.8	606	616.8	616.8	640	640	657	657	657	657	657
18.1	18.1	18.1	18.1	18.1	18.1	18.1	40.4	41.1	41.1	42.6	42.6	43.8	43.8	43.8	43.8	43.8
818128	818128	818128	818128	818128	393753	393753	3915	3499	3498	10320	6045	4556	4556	4556	4556	4556
4	4	4.	4	4	4	4	4	4.	4	4	4	4	4	4.	4	4
US-09-949-016-14550	US-09-949-016-14549	US-09-949-016-14548	US-09-949-016-14547	US-09-949-016-14546	US-09-949-016-14574	US-09-949-016-14573	US-09-976-594-93	US-09-949-016-276	US-09-949-016-1359	US-09-091-501B-9	US-09-091-501B-7	US-09-949-016-2830	US-09-949-016-2829	US-09-949-016-2828	US-09-949-016-2827	US-09-949-016-2826
Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence						
14550, A	14549, A	14548, A	14547, A	14546, A	14574, A	14573, A	93, Appl	276, App	1359, Ap	9, Appli	7, Appli	2830, Ap	2829, Ap	•	•	2826, Ap

ALIGNMENTS

RESULT 1 US-09-687-875A-1

GENERAL INFORMATION:

PEI

Sequence 1, Application US/09687875A Patent No. 6544786

```
밁
                                                                              δ
                                                                                                                    밁
                                                                                                                                               δ
                                                                                                                                                                                      밁
                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                   US-09-687-875A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/158,868
PRIOR FILING DATE: 1999-10-15
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                             Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 5952
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
LOCATION: (2897)...(2898)
OTHER INFORMATION: $4 junction site
NAME/KEY: misc_feature
LOCATION: (3198)...(3199)
OTHER INFORMATION: $2 junction site
                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Xiao, Xiao
APPLICANT: Liu, Paul
TITLE OF INVENTION: METHOD AND VECTOR FOR PRODUCING AND TRANSFERRING TRANS-SPLICED
FILE REFERENCE: 00792
CURRENT APPLICATION NUMBER: US/09/687,875A
CURRENT FILING DATE: 2000-10-13
                                                                                                                                                                                                                                                                                                                               : Local Sim:
thes 1501;
                                                   3455
                                                                                                                                                                                          3335
                                                                                                                                                                                                                                                              3275
                                                                                      181
                                                                                                                                                        121
                   241
                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                              ш
                                                                                                                                                                                                                                                                                                                                               Similarity
CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCCAGAGAGCTGCCTCCTG 300
                                                                                                                                                                                        AATTGAAAACTAAAGAACCTGTAAICATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                                                                                                                                                                                            TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                   AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                        TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 3454
                                                                                                                                          TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 180
                                                                                                                                                                                                                                                                                              TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                               100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                   DB
                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                               Length 5952;
                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                Gaps
                                                     3514
                                                                                                                                                                                                                                                              3334
                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                  0
```

```
4535
                                                                                                                     4475
                                                                                                                                                                        4415
                                                                                                                                                 1201
                                                                                                                                                                                                 1141
                                                                                                                                                                                                                           4355
                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                            4295
                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                             4235
                                                                                                                                                                                                                                                                                                                                                                               4175
                                                                                                                                                                                                                                                                                                                                                                                                                                 4115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3815
                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                            AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTGACCAGCGCAGGC 1320
                         TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 1380
            TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                               TCCGTGTCTTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                              TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGACGAACAGGGAGGA
                                                                                                                                                                                GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                   TGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                     TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCAACGTCCCTTCTCT
                                                                                                                                                                                                                                                                                   ACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900
                                                                                                                                                                                                                                                                    ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                         TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A CGT CAATGA CCTTGCT CGCCAGCTTA CCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ARAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAGATGAGACCCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                               4534
                                                                                                                                                                 4474
                                                                                                                                                                                                                                           1140
                                                                                                                                                                                                                   4414
                                                                                                                                                                                                                                                                     4354
                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                       4294
                                                                                                                                                                                                                                                                                                                                                                        4234
                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                         4174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

LENGTH: 5627
                    Ş
                                              밁
                                                                  δ
                                                                                         밁
                                                                                                                 Ś
                                                                                                                                                 뮍
                                                                                                                                                                    Ś
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 2
US-09-949-016-2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ДЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2831, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
                    421
                                                                     361
                                                                                              555
                                                                                                                        301
                                                                                                                                                  495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4775
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                          241
                                                                                                                                                                                                    435
                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                     375
                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                       315
                                                                                                                                                                                                                                                                                                                                                         255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCCCCAAGCTG
                                                                                        AGGAGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                              AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCCTTG
                                                      AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG 420
                                                                                                                                           CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTG
                                                                                                                                                                                                            AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATGAATTAAGCCGGGAGGCACCTA 120
                                                                                                                                                                                            AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                     Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                              DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                              Length 5627;
                                                                                                                                                                                                                                                                                                                                                                                                     0;
                480
                                                                                                                360
                                                                                                                                                                                                                      240
```

•B Ş В Ś

674

614

554 300 494 434 180 374

B 8 В δ В S д Ş 밁 Ş В ঠ Ъ Ś 밁 Ş 문 δ. 밁 Ş 밁 δ 밁 Ş 당 5 8 Ş Ъ Ś 밁 Ś

```
1395
                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                 1335
1501
                             1695
                                                                                    1635
                                                                                                                                                                                              1515
                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                    1455
                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                        1275
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ດ
                          CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1500
                                                                                 TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                            GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                           GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                        GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                              AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                  TGACCACTATTTATGACCGCCTGGAGCAAGAGCACCAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                    TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACGTCAATGACCTTGCTCGCCCAGCTTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGACGTGAGCC
                                                                                                                                                                                               AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                     TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
1501
                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                           1454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1214
                                                                                                            1440
                                                                                                                                                                                               1574
                                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                     1514
                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                  1394
                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                         1334
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                          1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                    1694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         734
```

S B

8

음 중 음

성 유

중 유

8 8 8 8 8 8

ક

5 B 5 B 5 B 5 B

중 음 중 음

8 8 8 8 8 8

G 1755

```
GENERAL INC. COLLEGE

GENERAL INCOMNATION:
APPLICANT: VENTER, J. Craig et al:
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSITILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CLOO1307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR PILING DATE: 2000-10-3
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 2832
LENGTH: 5627
TYPE: DNA
ORGANISM: Human
US-09-949-016-2832
                                         밁
                                                                 δ
                                                                                                 밁
                                                                                                                      S
                                                                                                                                                  밁
                                                                                                                                                                                   δ
                                                                                                                                                                                                                문
                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-09-949-016-2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2832, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500; Conservative
                                                                       541
                                                                                                                                                         675
                                                                                                                                                                                                                  615
                                                                                                                                                                                                                                                                        555
                                                                                                                                                                                                                                                                                                                                 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                109
                                                                                                   735
                                                                                                                             481
                                                                                                                                                                                      421
                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                       435
                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               255 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                               AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                            ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                         ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGACC
                                                                                                                   AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCCAAGATC
                                                                                                                                                         AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                        AAAGACTCCAAGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                  AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                     AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                       AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                 CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                         AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Score 1499.4; pred. No. 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ASSOCIATED
OF DETECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AND USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THEREOF
                 660
                                             854
                                                                        600
                                                                                                    794
                                                                                                                               540
                                                                                                                                                                                      480
                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               314
                                                                                                                                                         734
                                                                                                                                                                                                                   674
                                                                                                                                                                                                                                                                          614
                                                                                                                                                                                                                                                                                                                                 554
                                                                                                                                                                                                                                                                                                                                                                                         494
                                                                                                                                                                                                                                                                                                                                                                                                                                                434
```

```
RESULT 4

US-09-949-016-2804
; Sequence 2804, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTIO
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
                                                                                                                                Ş
                                                                                                                                                    В
                                                                                                                                                                  Ş
                                                                                                                                                                                    В
                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                               뫄
                                                                                                                                                                                                                                                                              성 유
                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                       Ъ
                                                                                                                                                                                                                                                                                                                                                                                        중 유
                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                   1755
                                                                                                                                   1501
                                                                                                                                                                       1441
                                                                                                                                                                                         1635
                                                                                                                                                                                                          1381
                                                                                                                                                                                                                            1575
                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                1515
                                                                                                                                                                                                                                                                                                   1455
                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                       1395
                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                          1335
                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                             1275
                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                  G 1755
                                                                                                                                   ດ
                                                                                                                                                CAGAGATCGAAGCCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                           CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                             TTGGGGGCAGTAACATTGAGCCAAGTGTCCCGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                  TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                   TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                       TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                         AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                     AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                        TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                            GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                ĠĊĠŦĠĠĀĪĀŦĠŦĠŦĊŦĠĀĀĊŦĠĠĊŦĠĊŦĠĀĀŦĠŦŦŦĀŦĠĀŦĀĊĠĠĠĀĊĠĀĀĊĀĠĠĀĠĠĀ
                                                                                                                                                                                                                                                                                                                                                                    rgaccactartrardaccoccrogagcaagcacaacaacrartrogreaaccitererer
                                                                                                                                                                                                                                                                                                                                                                               TGACCACTATTTATGACCGCCTGGAGCAAGAAGAAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                 ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                             TTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA
                     DETECTION
                     AND
                    USES
                    THEREOF
                                                                                                                                                1754
                                                                                                                                                                 1500
                                                                                                                                                                                    1694
                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                       1634
                                                                                                                                                                                                                                         1380
                                                                                                                                                                                                                                                         1574
                                                                                                                                                                                                                                                                                              1514
                                                                                                                                                                                                                                                                                                                                 1454
                                                                                                                                                                                                                                                                                                                                                                     1394
                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                        1334
                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                           1274
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               914
       Ś
                         밁
                                         Ş
                                                         밁
                                                                            Ş
                                                                                               B
                                                                                                             Ś
                                                                                                                                    밁
                                                                                                                                                   Ś
                                                                                                                                                                        밁
                                                                                                                                                                                       δ
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                         B,
                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                          2489
                                                            2429
                                                                                                2369
                                                                                                                                    2309
                                                                                                                                                                       2249
                                                                                                                                                                                                            2189
                                                                                                                                                                                                                                               2129
                                                                                                                                                                                                                                                                                  2069
                                                                                                                                                                                                                                                                                                                                                          1949
        781
                                           721
                                                                               661
                                                                                                                                                                                                                                                                                                                      2009
                                                                                                                  601
                                                                                                                                                     541
                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                             1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1769
                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ᆫ
```

```
CURRENT FILING DATE: 2000-04-14;
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20;
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03;
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 2804
LENGTH: 7070
TYDE: DNA
ORGANISM: Human
US-09-949-016-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                     ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                         AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                        ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                   AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAGCÁGCCTTTGGAAGGACTAGAGAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGGAGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             recaegaactricreerereectacaecteaaagargargaattaaecceecaecaecta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

2488

2428 720

660 2368 600 2308 540 2248 2188 420

2128

2068

300

2008

240

1948 180 . 120

1828 60

1888

480

```
Sequence 2805, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASS
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF
FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
; PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
; PRIOR FILING DATE: 2000-09-09-08
; PRIOR FILING DATE: 2000-09-09-08
; PRIOR FILING DATE: 2000-09-0
                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-09-949-016-2805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                             Ġ 3269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                            ASSOCIATED
OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                        B
                                                                                        5
                                                                                                                                  밁
                                                                                                                                                            S
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; ORGANISM: Human US-09-949-016-2805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                         2549
                                                                                                                                                                                                                                                                                 2489
                                                                                                                                                                                                                                                                                                                                                       2429
                                                                                                                                                                                                                                                                                                                                                                                                                            2369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                            961
                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
     GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                              CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                 CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                   TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                          TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                         TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAGAGACCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                            ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.9%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1499.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>,</u>
                                                                                                  960
                                                                                                                                                                                                                                             840
                                                                2728
                                                                                                                                     2668
                                                                                                                                                                       900
                                                                                                                                                                                                         2608
                                                                                                                                                                                                                                                                                   2548
                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                       2488
                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                              2428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
```

, QY 61 TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGAATTAAGCCGGCAGGCA	CCAGTGGAAGCGTCTGCACCTTTCTC 60	Query Match 99.9%; Score 1499.4; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	S-0	NUMBEI SOFTWI SEQ ID	PRIOR PRIOR PRIOR PRIOR	; CURRENT APPLICATION NUMBER: US/09/949,016 ; CURRENT FILING DATE: 2000-04-14 ; PRIOR APPLICATION NUMBER: 60/241,755 ; PRIOR FILING DATE: 2000-10-20		US-09-949-016-2806 ; Sequence 2806, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION:	Db 3269 G 3269 RESULT 6	1501	— H (QY 1381 TIGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440				1201	120			Db 2729 GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 2788 OY 1021 ACCAGCACCAACCTCAAGCAAAATGACCAAGCCCATGGATATTATTAATTGTT 1080
γQ	g Qy	g Q	g dy	B 8	g &	g Qy	dg Qy	Db Qy	dg Qy	₽ .5	S B	Q D	Q V	Q.	B 8	מם	Qy Db	Qy	δ 4.	Db
1141 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200	1081 TGACCACTATTTATGACCGCCTGGAGCAAGAGGACAACAATTTGGTCAACGTCCCTCTCT 1140	1021 ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080 	961 GACTGCAGAAGGCCCTTTGCATCGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020 	901 CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960 	841 TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900 	781 CCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA	721 GAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCACTTTCTTT	661 TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720	601 ACGICAATGACCITGCTCGCCAGCITACCACITTIGGGCAITCAGCTCTCACCGTATAACC 660	2309 ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAAA		2189 APAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCCAAGCTG 2248 481 AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCCTCATTGACTCTCTCCAAGATC 540				2009 CAGAGCCTTTGGAAGGACCTAGAGAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG 2068				1829 TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATGAATTAAGCCGGCAGCACCTA 1888

Db 1949 AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTTACGAATATTTCTGA 2008 241 CAGAGCAGCCTTTGGAAGGACTAGAAGAAACCTCTACCAGGAGCCCAGAGAGCTGCCTCCTG 300	Db 1889 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCGATGTACATAGGGCCTTCAAGAGGG 1948 Qy 181 AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240	121 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG	61 1829	3GTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 66	Query Match 99.9%; Score 1499.4; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	SEQ 10 NO 2807 LENGTH: 7070 TYPE: DNA ORGANISM: Human TG-0.848-0145-2807	PRIOR HEFLICATION NUMBER: 00/231,496 PRIOR FILING DATE: 2000-09-08 NUMBER OF SEQ ID NOS: 207012 SOFTWARE: FastSEQ for Windows Version 4.0	PRIOR PELLING DATE: 2000-10-20 PRIOR PELLING DATE: 2000-10-20 PRIOR APPLICATION NUMBER: 60/237, PRIOR FILING DATE: 2000-10-03	FILE REFERENCE: CLOO1307 CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 CURRENT FILING DATE: 2000-04-14	KNOWN GENES ASSOCIATED	RESULT 7 US-09-949-016-2807 ; Sequence 2807, Application US/09949016	Db 3269 G 3269	1441 CA 3209 CA	1381 TIGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC	131 Tegecciccitcieca fearicialiccaaaficaaficaaficaaficaaficaafica	1201 MGIRCHGAIRCCIII CHANGCHAIGIGGAICH CHACAGAILIIGIGCACCAGCGCAGGC	1261 ICCGIGICCIGICIII IAAARCI IGGCALCATIII CCCIGIGIAAAGCACATIIIGGAAGACA 2969 TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 2969 TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA	2909 1201
		Qy 1201 TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260	Qy 1141 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200	1 TGACCACTATTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCTCTCT	ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT	Qy 961 GACTGCAGAAGGCCCTTTGCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020	QY 901 CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960	OY 841 TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900	Qy 781 CCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCCCTACTATA 840	QY 721 GAGTCAGGCAGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCACTTTCTTT	QY 661 TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720	QY 601 ACGTCAATGACCTTGCTCGCCAGCTTAACCACTTTGGGCATTCAGCTCTCACCGTATAACC 660	Qy 541 ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC 600	QY 481 AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC 540	Qy 421 AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG 480	Qy 361 AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG 420	OY 301 AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG 360	Db 2009 CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCCCTCCTG 2068

, DY 421 AAAGACTCCAAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGACGAGCTG	OY 361 AGTIGGGAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAATAGATGAGACCCTTG	301 2069	241 2009	181 1949	Qy 121 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG	QY 61 TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGAATAAAGCCGGCAGCAGCACCTA	OY 1 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC	Query Match 99.9%; Score 1499.4; DB 4; L Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; In	TYPE: DI ORGANISI -09-949-0:	NUMBER OF SEQ ID NOS: 207012 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 2808 LENGTH: 7070	PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR APPLICATION NUMBER: 60/231,498	CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20	APPLICANT: CHNTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATION OF INVENTION: WITH HUMAN DISEASE, METHODS OF DE FILE REFERENCE; CLOOL307	US-09-949-016-2808 ; Sequence 2808, Application US/09949016 ; Patent No. 6812339 ; GENERAL THYPOMATTON.	Db 3269 Ġ 3269 RESULT A	1501	Qy 1441 CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Db 3149 TTGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC	Db 3089 TGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT OY 1381 TTGGGGGCAGTAACATTGAGCCAAGTCTCCTGGAGCTTGCATTGCAAGTTGCAAGTTGCAAGTTGCAAGTTGCAAGTTGAGCAAGTTGAGCCAAGTTGAGCCAAGTTGAGCCAAGTTGAGCAAGTTGAGCAAGTTGAGCAAGTTGAGAGCAAGTTGAGCAAGTTGAGCAAGTTGAGCAAGTTGAGCAAGTTGAGCAAGTTGAGCAAGTTGAGAGCAAGTTGAGCAAGTTGAGAGAAGTTGAGAAGTTGAGAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAGCAAGTTGAGAAGTTGAGAAGTAGAAGAAGAAGAAGAAGAAG
	420 Cy 2188 Db	360 Qy 2128 Db	300 Qy 2068 Db	240 Qy 2008 Db	180 Qy 1948 Db	120 Qy 1888 Db	60 Qy 1828 Db	Length 7070; Qy 1 Indels 0; Gaps 0; Db 2	Qy S	Qy .	Oy Db	QY Db	ASSOCIATED OF DETECTION AND USES THEREOF	Qy da	Qy Db	3268	AACCCCAGTCCATGGTGT 1500 Db	AATITIGUTAATAATAAGC 1440 	
501 G 1501	1441 CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1500			9 1	1201 TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260 	1141 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200 	1081 TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT 1140	1021 ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTATTGTT 1080 	961 GACTGCAGAAGGCCCTTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020	901 CTTTAGCTGAACTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960 	841 TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900 	781 CCACGTCTGTCCAGGGTCCCTGGGAGAGAGAGCCATCTCGCCAAACAAA		661 TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720	601 ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC 660	2309 ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC 2368	N	18	

밁

```
Sequence 2809, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER FILE REFERENCE: CLOOL307

CURRENT PILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

NUMBER: OF SEQ ID NOS: 207012

SOFTWARE: FRASCEQ for Windows Version 4.0

LENGTH: 7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 7070
TYPE: DNA
ORGANISM: Human
JS-09-949-016-2809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1500; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -09-949-016-2809
                                2309
                                                                                                    2249
                                                                                                                                                                  2189
                                                                                                                                                                                                                                    2129
                                                                                                                                                                                                                                                                                                    2069
                                                                                                                                                                                                                                                                                                                                                                     2009
                                                                                                                                                                                                                                                                                                                                                                                                                                      1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1769
                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                 541
                                                                                                                                  481
                                                                                                                                                                                                  421
   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                      AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
 ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                  AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                            AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                           AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                    AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                     CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۵
                                                ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                     AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                    AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                      AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                  ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                    AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
   660
                                                                 600
                                                                                                                                   540
                                                                                                                                                                                                   480
                                                                                                                                                                                                                                    2188
                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                      2128
                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                      2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1828
                                2368
                                                                                                    2308
                                                                                                                                                                  2248
                                                                                                                                                                                                                                                                                                                                                                      2068
                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                  RESULT 10
US-09-949-016-2810
                                                                                                                                                                                    片
                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                  Õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S.
Sequence 2810, Application US/09949016
Patent NO. 6812339
GENERRAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION
FILE REFERENCE: CL001307
                                                                                                                                                                                    3269
                                                                                                                                                                                                                                                                                                                                                                                      3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                               ດ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G 1501
                                                                                                                                                                                                                                                                                     CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440
                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGTGGATATGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGACCACTATTTATGACCGCCTGGAGCAAGAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                      TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                    3269
                    AND
```

2968 1200 1140 2848 1080 2788

2908

1020

960

2668 900 780 2488

2548

2428

2728

뭐 ঠ

8 밁 Ş 밁 δ 밁 δ 밁 δ

밁 ঠ 문

문 5 밁 ঠ 밁 ঠ

USES

THEREOF

3208

3148 1380 3088

```
,
S
                                                밁
                                                                         Ş
                                                                                                        뮰
                                                                                                                                      δ
                                                                                                                                                                           뭐
                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; SEQ ID NO 2810
; LENGTH: 7070
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2810
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                2489
                                                                                                             2429
                                                                                                                                                                            2369
                                                                                                                                                                                                                                           2309
                                                                                                                                                                                                                                                                                                     2249
                                                                                                                                                                                                                                                                                                                                                                   2189
                                                                                                                                                                                                                                                                                                                                                                                                                                  2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2009
                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1949
                  781
                                                                                                                                             199
                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
      TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                     TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                               ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC 2428
                                                                                                                                                                                     ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                               ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                   ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                             AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                               AGGTGATCAAGGGATCCTGGCAGGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                           AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                               AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGAGAGACCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATGAATTAAGCCGGGAGGCACCTA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ttegageceáctittecaecaetteagaageageageateagaegecetteagegecet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1499.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
        840
                                                                      780
                                                                                                      2488
                                      2548
                                                                                                                                  720
                                                                                                                                                                                                  660
                                                                                                                                                                                                                               2368
                                                                                                                                                                                                                                                                                               2308
                                                                                                                                                                                                                                                                                                                                                         2248
                                                                                                                                                                                                                                                                                                                                                                                                                         2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2068
                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLO01307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
LENGTH: 7070
                                                                                                                                                                                                                                                                         RESULT 11
US-09-49-016-2811
/ Sequence 2811, Application US/09949016
/ Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                       3269
                                                                                                                                                                                                                                                                                                                                                                                                                                   3209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                                                     1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 TCAACCACGAGACTCAAACCATGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                       a.
                                                                                                                                                                                                                                                                                                                                                                                                     .
ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                              ĊAĠĀĠĀTĊĠĀĀĠĊĠĠĊĊĊŦĊŦŦĊĊŦĀĠĀĊŦĠĠĀTĠĸĠĠĊŢĠĠĀĀĊĊĊĊĀĠŦĊĊĀŢĠĠŦĠŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGGGGGCAGTAACATTGAGCCAAGTGTCCCGAGCTGCTTCCAATTTGCTAATAATAAGC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rccgrerccrercritinaaaacregearcarricccrereraaageacacarriegaagaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGACCACTATTTATGACCGCCTGGAGCAAGAGACAACAATTTGGTCAACGTCCCTCTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĠAĊTĠĊĀĠĀĀĠĠĊĊĊŤŤŤĠĊŤŤĠĠĀŤĊŤĊŤŤĠĀĠĊĊŤĠŤĊĀĠĊŤĠĊĀŤĠŦĠĀŤĠĊĊŤŤĠĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAGCACAÁCCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1501
```

3148

3028

2968

1140

2848 1080 2788

2728 1020

960

900 2608

2668

2908

```
밁
                                                                                                                                                                            S
                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                             δ
                                                                                  밁
                                                                                                     ð
                                                                                                                         밁
                                                                                                                                       δ
                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                    ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2811
                밁
                               र्
                                                  밁
                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 99.9%;
Best Local Similarity 99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 1500; Conservative
                  2669
                                                                                         2549
                                                                                                                           2489
                                                                                                                                                               2429
                                                                                                                                                                                                  2369
                                                                                                                                                                                                                                      2309
                                                                                                                                                                                                                                                                          2249
                                                                                                                                                                                                                                                                                                             2189
                                                                                                                                                                                                                                                                                                                                                2129
                                                                                                                                                                                                                                                                                                                                                                                    2069
                                                                                                                                                                                                                                                                                                                                                                                                                         2009
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1829
                                                                                                                                                                                                                                                                                          481
                                                                                                         781
                                                                                                                                                                                661
                                                                                                                                                                                                                   109
                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                       841
                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTTGG
                                                                                                  ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                   AGGTGATCAAGGGATCCTGGCAGGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                      AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                           AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960
                                                              TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900
                                                                                                                                                                                                                                                                                                                                                AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                             AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                  AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                     TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAAATGACAGAGCTCTACCAGT
                                                                                         AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1499.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ξ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
1020
                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1888
                                                     2668
                                                                                         2608
                                                                                                                            2548
                                                                                                                                              780
                                                                                                                                                               2488
                                                                                                                                                                                 720
                                                                                                                                                                                                  2428
                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                      2368
                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                    2128
                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                         2068
                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1828
                                                                                                                                                                                                                                                                          2308
                                                                                                                                                                                                                                                                                                             2248
                                                                                                                                                                                                                                                                                                                                                2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
```

```
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR PILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: FRASTSEQ for Windows Version 4.0
SEQ ID NO 2812
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2812
 밁
                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 12
US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
                                                                 Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2812, Application US/09949016 Patent No. 6812339
   1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2729
TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCCTTTCTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCÁGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              G 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGACCACTATTTATGACCGCCTGGAGCAAGAGACAACAATTTGGTCAACGTCCCCTCTCT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 3268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTTGAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                   99.9%;
99.9%;
                                                              ; Score 1499.4; pred. No. 0; O; Mismatches
                                                                                                     멂
                                                                                                     4:
                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2848
                                                                     0
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                       2789
                                                                                             1021
                                                                                                                   2729
                                                                                                                                                               2669
                                                                                                                                                                                                          2609
                                                                                                                                                                                                                                                      2549
                                                                                                                                                                                                                                                                                                 2489
                                                                                                                                                                                                                                                                                                                                             2429
                                                                                                                                                                                                                                                                                                                                                                                        2369
                                                                                                                                                                                                                                                                                                                                                                                                                                     2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2189
                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2069
                                                                                                                                                                                    901
                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19
GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                     ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                  ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                             GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                          GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                   TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                        CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                       CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                                                                                     TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                              TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720
                                                                                                                                                                                                                                                                                                                                                                                                ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                ccacercrerccaeeercccreeeaeaeaecearcreeceaaaeaaerecccracrara
                                                                                                                                                                                                                                                                                                        TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                  ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGACTCCAAGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAGAGAGCCCAGAATGTCCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGAATTAAGCCGGCAGGACCTA
 1200
                                                                                                                                                        2728
                       2908
                                                                                        1080
                                                                                                              2788
                                                                                                                                    1020
                                                                                                                                                                                                                                                 2608
                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                         2488
                                                                                                                                                                                                                                                                                                                                                                                   2428
                                                                                                                                                                               960
                                                                                                                                                                                                     2668
                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                            2548
                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                               2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                  ; SEQ ID NO 2813
; LENGTH: 7109
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2813
                            Ş
                                                                      Ś
          밁
                                                      밁
                                                                                               B
                                                                                                                   Ś
                                                                                                                                           B
                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-09-949-016-2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                        Matches 1500;
          1949
                                                     1889
                                                                                                 1829
                                                                                                                                             1769
                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2909
                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ģ 1501
```

įδ 문 Ş В δ 뫄 γQ В Ś 밁 Ś В Ś 밁 S 밁 δ 밁 Ś Б δ

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2813, Application US/09949016
PATENT NO. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR PRIOR PRICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR PRIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 60
                                              AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                             TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                          AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                             TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGGGGCAGTAACATTGAGCCAAGTGTCCCGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 3268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4; Length 7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ۲,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                         180
    2008
                                                                                                                                                        1948
                                                                                                                                                                                                                                                                                                                      1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
```

음 성

8

8 8 8 8 8

吊

```
1321
                                 3029
                                                                                                                                          1201
                                                                                                                                                                              2909
                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                   2849
                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                           2789
                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                2729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                 GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 1380
                                                                                                                                                                                                 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                             ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGAGGTCAATACTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                           TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                 TGACCACTATTTATGACCGCCTGGAGCAAGAGCAACAACTATTTGGTCAACGTCCCTCTCT 1140
                                                                                                                                                                                                                                                                                                                                                                                                GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGTCAATGACCTTGCCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG 2128
                                   AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                          TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 3028
                                                                                                                                                                              2968
                                                                                                                                                                                                                                                     2908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2068
                                 3088
                                                                                                                                                                                                                                                                                                                           2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
```

8 8 8 8 8 8

유

ঠ

음 성 음 성 음

8 8 8 8 8 8 8 8 8 8 8 8

```
; SEQ ID NO 2814
; LENGTH: 7109
; TYPE: DNA
; ORGANISM: Human
; ORGANISM: Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 14
US-09-949-016-2814
 S
                                      멍
                                                             ঠ
                                                                                       밁
                                                                                                                    Ś
                                                                                                                                                       밁
                                                                                                                                                                             Ś
                                                                                                                                                                                                                문
                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð · 함
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2814, Application Patent No. 6812339 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PRIOR PRIOR APPLICATION NUMBER: 60/231,498
PRIOR PRIOR SEQ ID NOS: 207012
SOFTMARE: FRANCESCO for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                2009
                                                                                                                                                                                                                                                                                                                                      1769
                                                                                                                                                                                                                                                                                                                                                                                             atch 99.9%; cal Similarity 99.9%; 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3269 G 3269
                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                   CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGGTCAATACTG
                                                                                                                 AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                              G 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440
AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAGATGAGACCCCTTG 420
                                                                                                CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                  TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 180
                                                                                                                                                                                                                                                                            TTGGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 3208
                                                                                                                                                         AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                   TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/09949016
                                                                                                                                                                                                                                                                                                                                                                                             score 1499.4; Pred. No. 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                               <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                      240
                                                                      360
                                                                                                                                                                                                                    1948
                                                                                                                                                                                                                                                                               . 1888
                                                                                                                                                          2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3148
                                         2128
                                                                                                  2068
                                                                                                                                                                                                                                                                                                                                                                                                0
```

```
CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1500
                                                                                                                                                                                rredededenárnácarreadeca a erereceda de receda de recea ar rederada radicado en como e
                                                                                                                                                                                                             TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                       TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                 regecercerrecateatrerarecaariceaariecaaeaerregergaagriecareer
                                                                                                                                                                                                                                                                                                                                                                                                                        AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĠĊĠŦĠĠĀŦÀŦĠŦĠŦĊŦĠĀĀĊŦĠĠĊŦĠĊŦĠĀĀŦĠŦŦŦĀŦĠĀŦĀĊĠĠĠĀĊĠĀĀĊĀĠĠĀĠĠĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      réaccacrátritareacceccregaecaaeaacaacaarireercaacereccererer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTTGGTCCACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTTGG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ĊŦŦŦĀĠĊŦĠĀĊĊŦĠĀĀŦĀĀŦĠŦĊĀĠĀŦŦĊŤĊĀĠĊŦŦĀŦĀĠĠĀĊŦĠĊĊĀŦĠĀĀĀĊŦĊĊĠĀĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTTAGCTGACCTGAATAATGTCAGGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAĀČĆĀĊĠĀĠĀĊŦĊĀĀĀĊĀĀĊŦŦĠĊŦĠĠĠĀĊĊĀŦĊĊĊĀĀĀĀŦĠĀĊĀĠĀĠĊŦĊŦĀĊĊĀĠŤ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACGTCTGTCGAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCCCTACTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rca de activit de anoma de la comencia del la comencia de la comencia de la comencia del la comencia de la comencia del la comencia de la comencia del la comen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGGCCCAAGCTG
                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                    3148
                                                                                                                                                                                                                                                                                                                                                              1380
                                                                                                                                                                                                                                                                                                                                                                                                                           3088
                                                                                                                                                                                3208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15

(US-09-949-016-2815

REQUENCE 2815, Application US/09949016

PATENT NO. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

PRIOR APPLICATION NUMBER: US/09/949,016

PRIOR APPLICATION NUMBER: 60/231,755

PRIOR FILLING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILLING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

CREANISM: Human

US-09-949-016-2815
                      밁
                                                             δ
                                                                                                                                          맑
                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ϋ́
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 99.9
Best Local Similarity 99.9
Matches 1500; Conservative
                                                                                                                                          2249
                                                                                                                                                                                                                                                              2189
                                                                                                                                                                                                                                                                                                                                                                                    2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1949
                                                                         541
                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1889
                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1769 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 60
ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC 600
                                                                                                                      AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                   AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCCAAGATC 540
                                                                                                                                                                                                                                          AAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                          AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                              agriggaaaaarrigaaccrigcacriccgcrigacriggcagagaaaaaragargagacccririg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATTGAĀĀĀCTĀĀĀGĀĀCCTĠTĀĀTCĀTGĀGTĀCTCTTGĀGĀCTGTĀCGĀĀTĀTTTCTGĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.9%; Score 1499.4; 99.9%; Pred. No. 0; tive 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 7109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
2368
                                                                                                                   2308
                                                                                                                                                                                                                                          2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2008
                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                 2188
                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1888
```

1021

2669

901

2609

2549

2489

721

2429

661

2369

2309

541

2249

481

2189

밁 Ş В Ş g Ş 멍 Ş 망 Ś В Ş 뮍 Ş В 5 밁 Ś В δ B 5 Б Ş В Ş 밁 Ś 밁 Ś 밁 \$ 밁 Ş 밁 Ś

1381 3089 1321 3029 1261 2969 1201 2909 1141 2849

1501

G 1501

8 8 8 8 8

8 8 8 8

Search completed: March 2, 2005, 07:48:49 Job time: 268.233 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum |
Maximum |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OM nucleic - nucleic search, using sw model
   a a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                       1499.4
1499.4
1499.4
1499.4
1499.4
                                                                                                                                                                                                                                                                                                                                                                1499.4
1499.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB seq length: 0
DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
Match
 US-09-845-416-6_COPY_2000_3500
1501
1 ctcacacagatgtttatcac......
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     March 2,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Issued_Patents NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ctcacacagatgtttatcac.....tctatccaaattccaagaca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
 2005, 04:16:40 ; Search time 261.233 Seconds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BB
                                                     US-09-687-875A-1
US-09-949-016-2831
US-09-949-016-2806
US-09-949-016-2807
US-09-949-016-2808
US-09-949-016-2808
US-09-949-016-2810
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2828
US-09-949-016-2828
US-09-949-016-2828
                   US-09-484-970B-60
US-08-836-022A-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (without alignments)
9401.765 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Description
                                                     sequence
                                                                                                                                                                                                                                                                                                                        Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
Sequence
                   Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                 1, Appli
2832, Ap
2832, Ap
2804, Ap
2806, Ap
2807, Ap
2807, Ap
2809, Ap
2811, Ap
281
Appl
Appl
Appl
```

'n	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	5
271.8	271.8	271.8	271.8	271.8	271.8	271.8	516	516	516	516	516	516	537.6	546.8	546.8	603.6	00000
18.1	18.1	18.1	18.1	18.1	18.1	18.1	34.4	34.4	34.4	34.4	34.4	34.4	35.8	36.4	36.4	40.2	
818128	818128	818128	818128	818128	393753	393753	4556	4556	4556	4556	4556	1571	. 3915	3499	3498	10320	
4	4	4	4.	4.	4	4	4	4	4	4	4	4	4	4	4	4	
US-09-949-016-14550	US-09-949-016-14549	US-09-949-016-14548	US-09-949-016-14547	US-09-949-016-14546	US-09-949-016-14574	US-09-949-016-14573	US-09-949-016-2830	US-09-949-016-2829	US-09-949-016-2828	US-09-949-016-2827	US-09-949-016-2826	US-09-949-016-2821	US-09-976-594-93	US-09-949-016-276	US-09-949-016-1359	US-09-091-501B-9	
Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence							
14550,	14549,	14548,	14547,	14546,	14574,	14573,	2830,	2829,	2828,	2827, Ap	2826,	2821, A	93, App	276, App	1359, Ap	9, Appli	

ALIGNMENTS

NESULT 1 US-09-687-875A-1 ; Sequence 1, Application US/09687875A ; Patent No. 6544786

GENERAL INFORMATION:

PEI

```
PRIOR APPLICATION NUMBER: 60/158,868
PRIOR FILING DATE: 1999-10-15
NUMBER OF SEQ ID NOS: 22
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
LENGTH: 5952
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
LOCATION: (2897).. (2898)
OTHER INFORMATION: S4 junction site
NAME/KEY: misc feature
LOCATION: (3198).. (3199)
COTHER INFORMATION: S2 junction site
                                                              밁
                                                                                                  Ś
                                                                                                                                         밁
                                                                                                                                                                        S
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-687-875A-1
                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Xiao, Xiao
APPLICANT: Liu, Paul
APPLICANT: Liu, Paul
TITLE OF INVENTION: METHOD AND VECTOR FOR PRODUCING AND TRANSFERRING TRANS-SPLICED
FILE REFERENCE: 00792
CURRENT APPLICATION NUMBER: US/09/687,875A
CURRENT FILING DATE: 2000-10-13
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                     hes 1501;
                                                                                                                                                                                                                        3194 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 3253
                                                                                                                                                                                                                                                                                                      3134 CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                      181
                                                                                                                                                                                     121
                                                                                                                                                                                                                                                 61 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                               Н
                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                             CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCCTGG
AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300
                                                                                     GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG 240
                                                                                                                                             GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 3313
                                                                                                                                                                    GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGGCTACAGCTGAAAGATGATG 3373
                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 1501; llarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4;
                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                            Length 5952;
                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                          3193
                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                         0
```

4573 1440

```
4454
                                                                                                                                                 4394
                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                       4334
                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                4274
                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4094
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4034
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3914
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3794
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                      ATACGGGACGAACAGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGT
                                                                                                                             ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                      ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                              CAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ĠĠĀĊŦĠĊĊĀŦĠĀĀĀĊŦĊĊĠĀĀĠĀĊŦĠĊĀĠĀĀĠĠĊĊĊŦŦŦĠĊŦŦĠĠĀŦĊŦĊŦŦĠĀĠĊĊŦĠŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                        TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                               ĊAĠĊŦĠĊĀŦĠŦĠĀŦĠĊĊŦŦĠĠĀĊĊĀĠĊĀĊĀĀĊĊŦĊĀĀĠĊĀĀĀĀŦĠĀĊĊĀĠĊĊĊĀŦĠĠĀŦĀ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATGACAGAGCTCTACCAGTCTTTAGCTGAACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 trca de teres de la comencia del comencia del comencia de la comencia del la comencia de la comencia del la comencia de la com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCTGANAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCCCAGAGAGCTGCCTCCTGAGGAGAGACCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACATAGGGCCTTCAAGAGGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                         1380
                                                                                                                                                                                   1320
                         4513
                                                                                                                               4453
                                                                                                                                                                                                                                      4393
                                                                                                                                                                                                                                                                                                                                                  4333
                                                                                                                                                                                                                                                                                                                                                                                                                                                           4273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
ITILE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
ITILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR PILING DATE: 2000-09-08
PRIOR PILING DATE: 2000-09-08
PRIOR PILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR PILING DATE: 2000-09-08
PRIOR PILI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; LENGTH: 5627
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2831
                                       S
                                                                                                밁
                                                                                                                                              Ş
                                                                                                                                                                                                    뫄
                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-09-949-016-2831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2831, Application US/09949016 Patent No. 6812339
                                          421
                                                                                                474
                                                                                                                                                 361
                                                                                                                                                                                                       414
                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                354
                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                         294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     _
                                                                                                                                                                                                                     TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG 60
                                                                               AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420
                                                                                                                                                                                        TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                  AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGGITCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ⊳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
```

₹Ե Ś 뮍 Ś 돲 Ś В 8 뮍 Ş 밁 δ В Ş 밁 δ В Ş 밁 Ś 멍 Ş В Ş 밁 Ś В Ś Дb Ş 뫄 δ В Ş 밁 Ş

533 480

473 360 413 300 353 240

```
1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1074
                                                                                                                                                                                                                                                                                                                               1314
                                                                                                                                                                                                                                                                                                                                                                                                       1254
                                                                                                                                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1134
1501
                                      1554
                                                                                                          1494
                                                                                                                                              1381
                                                                                                                                                                                1434
                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                         1374
                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
À 1501
                                    GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                           ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320
                                                                                                                                                                                                                                                                                                                                                    TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                         CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                   ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                                                                                                                         ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1433
                                                                                                                                                                                                                                                                                                                                 TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                          ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                  1493
                                                                                                                                                                                                                                                                                                                                 . 1373
                                                                                                                                                                                                                                                                                                                                                                                                       1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
```

유

음 성 음 성

ર્

8 8 8 8 8 8

밁

रु है रु

음 성 음

유

중 유

1614

A 1614

음 성

ঠ

음 성

8 8 8 8 8

```
Sequence 2832, Application US/09949016

Patent NO. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTEN. J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSITILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF FILE REFERENCE: CLOO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOPTWARE: FASELSEQ for Windows Version 4.0

SEQ ID NO 2832

LENGTH: 5627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; LENGTH: 5627
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2832
                S
                                            밁
                                                                   Ş
                                                                                                     밁
                                                                                                                       5
                                                                                                                                                      밁
                                                                                                                                                                                    ð
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                            멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-09-949-016-2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                                                                       594
                                                                                                                                                              534
                   601
                                                                                                                              481
                                                                                                                                                                                       421
                                                                                                                                                                                                                     474
                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                              414
                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                     354
                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              174
                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                            294
                                                                                                                                                                                                                                                                                                                                                                                                                                                     234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                   AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                            TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                           AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                    AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                              GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                          AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                      AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                              GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; Score 1499.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASSOCIATED
OF DETECTION AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      THEREOF
                                                                                                                                 540
                                                                                                                                                                                          480
                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      173
                   660
                                                                            600
                                                                                                                                                              593
                                               713
                                                                                                       653
                                                                                                                                                                                                                                                                                                                                     413
                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                              353
                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
```

```
RESULT 4

US-09-49-016-2804
; Sequence 2804, Application US/09949016
; Sequence 2804, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; GENERAL INFORMATION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
; FILE REFERENCE: CL001307
; CURRENT APPLICATION NUMBER: US/09/949,016
                                                                                                                                                        Ś
                                                                                                                                                                                                                                                8
                                                                                                                                                                                   84 S
                                                                                                                                                                                                                                                                          뮍
                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                  1494
                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                              1434
                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                          1374
                                                                                                                                                                                                                                                                                                                                                                      1314
                                                                                                                                         1614
                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                    1254
                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                714
                                                                                                                                                               ×
                                                                                                                                       A 1614
                                                                                                                                                                                               GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                             ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                          ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                        ATTIGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                  ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                  TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCAGGTTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                     GATTTTGTGACCAGCCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                   1613
                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                              1553
                                                                                                                                                                                                                                                                            1493
                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                         1433
                                                                                                                                                                                                                                                                                                                                                                     1373
                                                                                                                                                                                                                                                                                                                                                                                                                 1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.
SEQ ID NO 2804
LENGTH: 7070
TYPE: DNA
ORGANISM: Human
US-09-949-016-2804
          S
                                                Ş
                                                                            뮹
                                                                                               S
                                                                                                                                           Ś
                                  밁
                                                                                                                         밁
                                                                                                                                                                     뮍
                                                                                                                                                                                     5
                                                                                                                                                                                                                문
                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT FILING DATE: 2000-04-14
                                                                                                                          2228
                                                                                                                                                                        2168
                                                                                                                                                                                                                    2108
                                                                                                                                                                                                                                                                                                             1988
                                                                                                                                                                                                                                                                                                                                                         1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1808
                                                                                                                                                                                                                                                                2048
                                                                                                                                                                                                                                                                                                                                                                                                      1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1688
                                                                                                                                                 601
                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.9%;
ilarity 99.9%;
Conservative
```

```
TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                               CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                            TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                               ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                            GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                        CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                     ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                        GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                            AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                         AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 1499.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                             540
  840
                                                                                780
                                                                                                                                                                                                                                                                                                                                                                     2167
                                                                                                                         2347
                                                                                                                                                               720
                                                                                                                                                                                                        2287
                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                        2227
                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                      2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
```

```
US-09-949-016-2805

(US-09-949-016-2805, Application US/09949016

(Equence 2805, Application US/09949016

(Equence 2805, Application US/09949016

(Equence 2805, Application US/09949016

(Equence 2805, Application US/09949016

(ITILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF FILE REFERENCE: CL001307

(CURRENT APPLICATION NUMBER: US/09/949,016

(CURRENT FILING DATE: 2000-04-14

(PRIOR APPLICATION NUMBER: 60/241,755

(PRIOR FILING DATE: 2000-10-20

(PRIOR FILING DATE: 2000-10-20

(PRIOR APPLICATION NUMBER: 60/237,768

(PRIOR APPLICATION NUMBER: 60/237,768

(PRIOR APPLICATION NUMBER: 60/231,498

(PRIOR FILING DATE: 2000-10-03

(PRIOR FILING DATE: 2000-09-08

(PRIOR FILING DATE: 2000-09-08

(PRIOR FILING DATE: 2000-09-08

(PRIOR FILING DATE: 2000-010-03

(PRIOR PRIOR FILING DATE: 2000-010-03

(PRIOR FILING DATE: 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATTTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 3127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAMACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                          ASSOCIATED
OF DETECTION AND
                                                                                                                                                                                                                                                                              USES
                                                                                                                                                                                                                                                                            THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                              밁
                                                                                              S
                                                                                                                                        밁
                                                                                                                                                                    δ
                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Human
US-09-949-016-2805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 1500;
                                                                                                                                                                                                                                                                                            2348
                                                                                                                                                                                                                  2408
                                                                                                                                                                                                                                                                                                                                                                          2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1628
                                                                                                                                                                              841
                          961
                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
    CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCCTGAGATCCCCTGG
                                                                                    CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                      CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                          CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                CAGCATCTCAGCACTTTCCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                                                                                                    TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                          TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                        TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>.</u>
                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                  . 780
                          1020
                                                                                                                                                                                                                  2467
                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                2587
                                                                                                    960
                                                                                                                                          2527
                                                                                                                                                                                                                                                                                                2407
                                                                                                                                                                                                                                                                                                                                                                        2347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                    2287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
```

QY 61 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120	1 1628	Query Match 99.9%; Score 1499.4; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	TYPE: DI ORGANISI S-09-949-0:	 NUMBER OF SEQ ID NOS: 207012 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 2806 LENGTH: 7070 	PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR APPLICATION NUMBER: 60/231,498 PRIOR FILING DATE: 2000-09-08	CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR FILING DATE: 2000-10-20	; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ; FILE REFERENCE: CL001307	US-09-949-016-2806 ; Sequence 2806, Application US/09949016 ; Patent No. 6812339 ; GENERAL INFORMATION:	RESULT 6	1501	Qy 1441 GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500			QY 1261 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCATGTTTATG 1320	2828		1141	QY 1081 GGACTGCCATGAAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140		Db 2588 CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 2647 Oy 1021 AAATGACAGAGCTCTACCAGTCTTTTTACCTGCAGGACTCCAAACAACTTGCTGGGACCATCCCA 2647
Ş	Db Qy	Оу	Qу	dg Qy	Db Oy	Oy Db	D Qy	dg Qy	D QY	D 4	S B	Q D	Qy da	Q g	γQ	g &	Db	o u		 -
			10	901 CAGCATCTCAGCACTITCTATCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC 960	841 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGGATGAAGCCCACAGGGACTTTGGTC 900	781 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840	721 CTCTGAAAGAGAACGTGAAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780	661 2288	601 ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCATCTCC 660 	2168 GAAAAATRAGATGAAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG 600 2168 GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG 2227	2108	2048 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC	1988 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 421 AGCCAGAGAGCTGCCCTCCTGAGGAGAGCCCAGAAATGTCACTCGGCTTCTACGAAAGC	1928 361	301	241 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG	1808		121	

QY 241 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300	181 GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG	121 GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT	Qy 61 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120	acaacctggatgaaaacagccaaaaaatcctgagat(Query Match 99.9%; Score 1499.4; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	; EENCTH: 7070 ; LENCTH: 7070 ; TYPE: DNA ; ORGANISM: Human US-09-049-016-2807	PRIOR FEILURG DATE: 2000-09-08 ; PRIOR FILING DATE: 2000-09-08 ; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FastSEQ for Windows Version 4.0		FILE REFERENCE: CL001307 CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 DEPICE APPLICATION NUMBER: C6/21 755	FACESIC NO. 0012339 ; GENERAL INFORMATION: ; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED	RESULT 7 US-09-949-016-2807 ; Sequence 2807, Application US/09949016	Db 3128 A 3128	3068 GF	3008 GTANAGCACATTTGGAAGACAAGTACCAGTTTCAAGCAAGTGGCAAGTTCAACAG	1321 ATACGGGACGAACAGGGGCCCGTGCCTTTTAAAACTGGCATCATTTCCCTGT	2888 ATTIGGTCANCGICCTCTCTGCGTGGATATGTGTCTGAACTGGCTGTAATGTTTATG		Db 2768 CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCATGGATA 2827
QY 1321 ATACGGGACGAACAGGGAGGATCCGTGTCCTTTTAAAACTGGCATCATTTCCCTGT 1380	Qy 1261 ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320	Qy 1201 TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260	OY 1141 CAGCTGCATGTGATGCCTTGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200			Qy 961 CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020	QY 901 CAGCATCTCAGCACTTTCTTTCCACGTCTGTCAGGGTCCCTGGGAAGAGAGCCATCTCGC 960	OY 841 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC 900	QY 781 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840	OY 721 CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780	QY 661 TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC 720	OY 601 ACCTCAAGCTGAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC 660	QY 541 GAAAAATAGAACCCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG 600	OY 481 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540	OY 421 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC 480	QY 361 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420	Oy 301 TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360	Db 1868 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGAATG 1927

Db 1808 GGAAGCGTCTGCACCTTCTCTGCAGGAACTTCTGGTTGTGTGCTGAAAGATGATG 1867 241 AATTAAGCCGGCAGGCAGCCTATTGGAGGCGACTTTCCAGCAGAAGCAAAGATGATG 1867 Qy 241 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300	OF PARTY IN COMPTICATION CONTINUES AND ACADEMIC TO THE ACADEMIC TO THE ACADEMIC TO THE ACADEMIC AND TO THE ACADEMIC AND TO THE ACADEMIC AND TH	Query Match Best Local & Matches 1500 1 1628	; NUMBER OF SEQ ID NOS: 207012 ; SOPTWARE: FastSEQ for windows Version 4.0 ; SEQ ID NO 2808 ; LENGTH: 7070 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-2808	; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF; FILE REFERENCE: CLOR1307; CURRENT APELICATION NUMBER: US/09/949,016; CURRENT FILING DATE: 2000-04-14; PRIOR APPLICATION NUMBER: 60/241,755; PRIOR APPLICATION NUMBER: 60/241,755; PRIOR APPLICATION NUMBER: 60/237,768; PRIOR FILING DATE: 2000-10-20; PRIOR APPLICATION NUMBER: 60/237,768; PRIOR FILING DATE: 2000-10-03; PRIOR APPLICATION NUMBER: 60/231,498; PRIOR APPLICATION NUMBER: 60/231,498	ESULT 8 S-09-949-016-2808 Sequence 2808, Application US/09949016 Patent No. 6812339 GENERAL INFORMATION: APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES	Db 2948 ATACGGAACAAGAACAGGAAGATCCGTGTCTTTTAAAACTGGCATCATTTCCCTGT 3007 Qy 1381 GTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG
\$\frac{1}{2}\$\$\fra	Q D Q D 1	Q	0 Qy	0	3	40 40 40 40 40
2888 ATTTGTCAACAGCTCCCTCTCTGCGTGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 2947 1321 ATACGGAACAGGAAGATCCGTTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380	68 68 68 68	1021 AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080	901 CAGCATCTCAGCACTTTCTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGGCCATCTCGC 960	2348 CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGCCA 781 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840		2048 AGCCCAGAGAGCTCCTCGAGGAGAGAGCCCAGAATGTCACCTCGGCTTCTACGAAAGC 2107 481 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGGACTCCCGCTGACTGGCAGA 540 2108 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540 2108 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 2167 541 GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG 600

```
GENERAL INFORMATION:

GENERAL INFORMATION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/231,758

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 2809

LENGTH: 7070

TYPE: DNA

ORGANISM: Human

US-09-949-016-2809
                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                         밁
                                                                                        밁
                                                                                                            ð
                                                                                                                                          유왕
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ઈ
                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2809, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -09-949-016-2809
                               2168
                                                                                         2108
                                                                                                                                                     2048
                                                                                                                                                                                                               1988
                                                                                                                                                                                                                                                                           1928
                                                                                                                                                                                                                                                                                                                                    1868
                                                                                                                                                                                                                                                                                                                                                                                              1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1628
                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                             541
                                                                                                                      481
                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                      301
   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                   AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                            GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGAACTTCGGAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Þ
                                               GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                     AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                      AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                           TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                     AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                               GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
   ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                               GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                            AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                            AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                               AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                            AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                           TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
   660
                                                             600
                                                                                                                         540
                                                                                                                                                                                   480
                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1687
                               2227
                                                                                           2167
                                                                                                                                                     2107
                                                                                                                                                                                                                 2047
                                                                                                                                                                                                                                                                           1987
                                                                                                                                                                                                                                                                                                                                     1927
                                                                                                                                                                                                                                                                                                                                                                                               1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                         RESULT 10
US-09-949-016-2810
                                                                                                                                                                                            δ
                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ᅜ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
Sequence 2810, Application US/09949016

Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2408
                                                                                                                                                                     3128
                                                                                                                                                                                                 1501
                                                                                                                                                                                                                               3068
                                                                                                                                                                                                                                                                                                                                                     2948
                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCCTCGCCAGCTTACCACTTTGGGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                     A 3128
                                                                                                                                                                                                   A 1501
                                                                                                                                                                                                                                                                                                                                                   ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                     ATACGGGACGAACAGGGAGGATCCGTGTCTTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                  ASSOCIATED OF DETECTION
```

2767

2827

900

2467

2527

2587

2347 720 2287

2407

AND USES

THEREOF

3127

3007

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; SEQ ID NO 2810
; LENGTH: 7070
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION NUMBER: 60/241,755
PRIOR PRIUNG DATE: 2000-10-20
PRIOR PPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
                                                                                                                                                               2288
                                                                                                                                                                                                                                                   2228
                                                                                                                                                                                                                                                                                                                                       2168
                                                                                                                                                                                                                                                                                                                                                                                                                         2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1868
                                                                                                                   721
                                                                                                                                                                                                                                                                                            601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1808
                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTTGAGATCCTTGG
                                                                                      CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780
                    TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                 TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                            TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                     accitcaageridedecaageridageridaireaagegarteerideeagecegridegegareree
                                                                                                                                                                                                                                                                ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                       GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                  GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420
                                                                                                                                                                                                                                                                                                                                                                                                             AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGGAGGAGGATG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGGTTCCGÁTGATGCÁGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000-04-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>,,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                             2407
                      840
                                                                                                                                                   2347
                                                                                                                                                                                          720
                                                                                                                                                                                                                                     2287
                                                                                                                                                                                                                                                                                                                         2227
                                                                                                                                                                                                                                                                                                                                                                                                             2167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2107
                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

FITTLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,768
                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 11
US-09-949-016-2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                     Sequence 2811, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACGGGACGAACAGGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACGGGACGAACAGGAAGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGCTGCATGTGATGCCTTGGACCAGCACCAAGCTCAAGCAAAATGACCAGCCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cascarcicascacirrictriccacsrcisticcasserccciressasasasccarcicsc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCAGGTGGCCGTCGAGGCCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2527
```

В Ś Дb δ 밁 δ 밁 δ 밁 Ş 밁 8 밁 Ş 밁 Ş g Ś 밁 Ś 뫄 S 밁 S

```
S
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                       문
                                            ક
                                                                             유
                                                                                                                       밁
                                                                                                                                                   5
                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                 2168
                                                                                                                                                                                                                                                                                                                                                                                                    2108
                                                                             2468
                                                                                                                               2408
                                                                                                                                                                                    2348
                                                                                                                                                                                                                                         2288
                                                                                                                                                                                                                                                                                             2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1688
                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                   901
                                                                                                                                                           781
                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 CTCACACAGATGTTTATCACAAACCTGGATGAAAAAACAGCCAAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                             GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG 600
CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                        TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840
                                                                                                                                                                                    CTCTGAMAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                     CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780
                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                     ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                 GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TACATAGGGCCTTCAAGAGGGAATTGAAAACCTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                           TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                    AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTAAGCCGGCAGCCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                             TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1499.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                             2527
                                                                                                                               2467
                                                                                                                                                                                    2407
                                                                                                                                                                                                                                         2347
                                                                                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                        2587
                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                 2227
                                                                                                                                                                                                                                                                                                                                                                                                   2167
                                                                                                                                                                                                                                                                                                                                                                                                                                                         2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
```

```
APPLICATE VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR PILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FRATESEQ for Windows Version 4.0

SEQ ID NO 2812

LENGTH: 7109

TYPE: DUA

CRGANISM: Human

US-09-949-016-2812
밁
                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 12
US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                     Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 2812, Application US/09949016 Patent No. 6812339
CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCCTGG 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CADACADAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         À 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAGAC 3127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTGCAGATTATTAATTGATTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATGACAGAGCTCTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                         Conservative
                                                                     99.9%; Score 1499.4;
99.9%; Pred. No. 0;
tive 0; Mismatches
                                                                                                          DB 4;
                                                                                                        Length
                                                                       0;
                                                                       Gaps
 1687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2647
                                                                         0
```

중 유 경

유성

음 성

1688 ANGERTICORINANCIO CONTROLAMANOCITICORINGA PRANTRANCITICA 120 1749 GIBACTITICORINANCITICITA PRANTRANCITICA PROPRIOR 1747 1711 GERACCITICORINANCITICA PROPRIOR 1747 1712 GIBACTITICORINANCITICA PROPRIOR 1747 1713 GIBACTITICORINANCITICA PROPRIOR 1747 1714 ANTINACICICORICA PROPRIOR 1747 1715 GIBACTITICORINANCITICA PROPRIOR 1747 1716 GIBACTITICORICA PROPRIOR 1747 1717 ANTINACICICORICA PROPRIOR 1747 1717 ANCICIPACIA PROPRIOR 1747 1717 ANTINACICICORICA PROPRIOR 1747 1718 ANCICIPACION ANTINITICA ANDICA PROPRIOR 1747 1718 ANCICIPACION ANTINITICA ANDICA PROPRIOR 1747 1718 ANCICIPACION ANTINITICA ANDICA PROPRIOR 1747 1717 ANTINITICA PROPRIOR 1747 1717 ANTINITI	61 2200000000000000000000000000000000000
OY 1201 TCCTCCACATTATTATATTATTATATATTATATATTATATCTCAAATTCCAACTACT	

중 음 중

5

유

용

```
2648
                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                           2588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2468
1321
                                                                                                                                                                                                 2768
                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                          AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                                                                     GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCCAGCTTACCACTTTGGGCA 780
ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                         TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                   CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                      CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                               GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCATCTCAGCACTTTCCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGAAAGAAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                            ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                    TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 2887
                                                                                                                                                                                                 2827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                               2767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
```

Ş

음 성 음 성 음

8 8 8 8 8 8 8 8

유

```
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
ITITE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
PRIOR PILING DATE: 2000-10
SEQ ID NO 2814
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2814
8
                                     밁
                                                            S
                                                                                       밁
                                                                                                                     δ
                                                                                                                                                        문
                                                                                                                                                                              5
                                                                                                                                                                                                                B
                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                       멂
                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 14
US-09-949-016-2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  & 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2814, Application US/09949016 Patent No. 6812339
                                                                                                                                                                                                                                                                                                                                                                                              Query Match 99.9%; Score 1499.4;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 1500; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2948
            361
                                                                                                                              241
                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                        CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A 3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                               AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAAACTCTACCAGG 420
                                                          TACATAGGGCCTTCAAGAGGGAATTGAAAACCTAAAGAACCTGTAATCATGAGTACTCTTG 360
                                                                                                                AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300
                                                                                                                                                                                                                      GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                           GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                BB
                                                                                                                                                                                                                                                                                                                                                                                                 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                4
                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AND USES
                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                          1687
                                           1987
                                                                                                    1927
                                                                                                                                                                                          240
                                                                                                                                                                                                                      1807
                                                                                                                                                                                                                                                                                 1747
                                                                                                                                                             1867
                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3007
```

421

481

```
GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                GTAAAĞCACATTTĞGAAĞACAAĞTACAĞATACCTTTTCAAĞCAAĞTĞĞCAAĞTTCAAÇAĞ
                                                                                                                                                        GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                           TCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACACA
                                                                                                                                                                                                                                                                                                                 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                              ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGCTGCATGTGATGCCTTGGACCAGCACCACCTCAAGCAAAAATGACCAGCCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               egactigecateaaactieceaagactigeagaagecettitigetiggatetetitigageetet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cadearcreageachtretrrecaegrereteaggereerreggagagagageearcrege
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Accircia a de tradecida de trad
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                         3127
                                                                                  1500
                                                                                                                                3067
                                                                                                                                                                         1440
                                                                                                                                                                                                                          3007
                                                                                                                                                                                                                                                                      1380
                                                                                                                                                                                                                                                                                                                                                               1320
                                                                                                                                                                                                                                                                                                                    2947
                                                                                                                                                                                                                                                                                                                                                                                                              2887
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2815, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION A FILE REFERENCE: CLOOL307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/247,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOPTWARE: FRASTSEQ for Windows Version 4.0

SEQ ID NO 2815

LENGTH: 7109
              밁
                                                  S
                                                                                                     밁
                                                                                                                                     Ś
                                                                                                                                                                                          片
                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 15
US-09-949-016-2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
            2168
                                                                                                   2108
                                                                                                                                                                                             2048
                                                                                                                                                                                                                                                                                       1988
                                                                                                                                                                                                                                                                                                                                                                                1928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1808
                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1748
                                                     541
                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1628 CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCCTGG 1687
                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGGAGATCCCTGG
GAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGCTGG
                        GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                  AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGCCTTCTACGAAAGC
                                                                                                                                                                                                              AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC 480
                                                                                                                                                                                                                                                                           AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGGCTACAGCTGAAAGATGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                     AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420
                                                                                                                                                                                                                                                                                                                                                                  TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                               TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 1807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          o
;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
2227
                                           600
                                                                                                                                     540
                                                                                                                                                                                   2107
                                                                                       2167
                                                                                                                                                                                                                                                                           2047
                                                                                                                                                                                                                                                                                                                                                                       1987
                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
```

2528

901

961

2468

841

2408

781

2348

2288

661

721

2168

18 ద δ Дb Ś 뫄 Ś 뫄 δ 밁 Ş 8 Ś 밁 8 밁 Ş 밁 δ 뮍 Ś В Ś 문 Ş 밁 δ В Ş 밁 Ş 밁 Ś g Š 밁 S

Þ

2948 1321

1261

	1501 A 1501 3128 A 3128	
AAGAC 1500 AAGAC 3127	1441 GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGA	
AACAG 1440 - 	1381 GTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG	
CCTGT 1380 CCTGT 3007	1321 ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTG	
TTATG 1320 TTATG 2947	1261 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG	
CAACA 1260 CAACA 2887	1201 TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAAC.	
GGATA 1200 GGATA 2827	1141 CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCAT	
CCTGT 1140 CCTGT 2767	1081 GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT	
TTATA 1080 TATA 2707	1021 AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT	
TCCCA 1020 TCCCA 2647	961 CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC	
CTCGC 960 CTCGC 2587	901 CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT	
TGGTC 900 GGTC 2527	841 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGG	
GCTTC 840 CTTC 2467	781 TICAGCICTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTT	
GGGCA 780 GGCA 2407	721 CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGG	
TGCGC 720 TGCGC 2347	661 TCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG	
TCTCC 660 CTCC 2287	601 ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCT	

S

ર્ક

밁

유 성

Search completed: March 2, 2005, 07:48:42 Job time : 267.233 secs

음 성

용 용 용

중 유

중 음

ર્

음 성 음

B 8

S

8

음 성

Ś

•				
•				
		·		

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
 იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      on:
   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed,
                 1499.4
1497.8
1497.8
1497.8
1497.8
1497.8
1497.8
11497.8
11497.8
11497.8
11497.8
11497.8
11497.8
11497.8
11497.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Issued_Patents_NA:*

1: /cgn2_6/ptodata/1/ina/5A_COMB.seq:*

2: /cgn2_6/ptodata/1/ina/5B_COMB.seq:*

3: /cgn2_6/ptodata/1/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/1/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/1/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 March 2, 2005, 04:16:40; Search time 261.233 Seconds (without alignments) 9401.765 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-845-416-2_COPY_2000_3500
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1202784 seqs, 818138359 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      l agactcatagattactgcaa.....aactggctgctgaatgttta
Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
 7070
7070
7070
7070
7070
7070
7070
7109
71109
71109
71109
71109
71109
71141
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71441
71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6 (c) 1993 - 2005 Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멂
                 US-09-484-970B-60
US-09-949-016-2806
US-09-949-016-2806
US-09-949-016-2808
US-09-949-016-2809
US-09-949-016-2811
US-09-949-016-2811
US-09-949-016-2812
US-09-949-016-2813
US-09-949-016-2814
US-09-949-016-2816
US-09-949-016-2816
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2818
US-09-949-016-2823
US-09-949-016-2823
US-09-949-016-2825
US-09-949-016-2825
US-09-949-016-2825
US-09-949-016-2832
US-09-949-016-2832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-687-875A-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                  Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                       Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
Sequence
                                 Sequence
                                 61, Appli
2804, Appl
2804, Appl
2805, Appl
2807, Ap
2808, Ap
2808, Ap
2811, Ap
2811, Ap
2813, Ap
2814, Ap
2816, Ap
2817, Ap
2818, Ap
2819, Ap
2819, Ap
2820, Ap
2821, Ap
2823, Ap
2823, Ap
2823, Ap
2823, Ap
2823, Ap
App1
```

14550, A	Sequence	4 US-09-949-016-14550	4	818128	18.1	271.8	4.5	
14549, A	Sequence	4 US-09-949-016-14549	4	818128	18.1	271.8	44	
14548, A	Sequence	4 US-09-949-016-14548	4	818128	18.1	271.8	43	
14547, A	Sequence	4 US-09-949-016-14547	4	818128	18.1	271.8	42	
14546, A	Sequence	4 US-09-949-016-14546	4	818128	18.1	271.8	41	
14574, A	Sequence	4 US-09-949-016-14574	4	393753	18.1	271.8	40	
	Sequence	4 US-09-949-016-14573	4	393753	18.1	271.8	39	
	Sequence	4 US-09-949-016-2830	4	4556	22.2	333	38	
2829, Ap	Sequence	4 US-09-949-016-2829	4	4556	22.2	333	37	
2828, Ap	Sequence	4 US-09-949-016-2828	4	4556	22.2	333	36	
2827, Ap	Sequence	4 US-09-949-016-2827	4.	4556	22.2	333	35	
•	Sequence	4 US-09-949-016-2826	4	4556	22.2	333	34	
2821, Ap	Sequence	4 US-09-949-016-2821	4.	1571	22.2	333	33	
93, Appl	Sequence	4 US-09-976-594-93	4	3915	31.1	467.2	32	
276, App	Sequence	4 US-09-949-016-276	4.	3499	31.7	476.4	31	
1359, Ap	Sequence	4 US-09-949-016-1359	4	3498	31.7	476.4	30	
9, Appli	Sequence	4 US-09-091-5018-9	4	10320	37.6	564.6	29	
7, Appli	Sequence	4 US-09-091-501B-7	4.	6045	37.6	564.6	28	

ALIGNMENTS

US-09-687-875A-1

Sequence 1, Application Patent No. 6544786 GENERAL INFORMATION:

US/09687875A

```
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
LENGTH: 5952
TYPE: DNA
ORGANISM: Homo sapiens
FRATURE:
NAME/KEY: misc feature
LOCATION: (2897)..(2898)
OTHER INFORMATION: S4 junction si
                                                          밁
                                                                                             S
                                                                                                                                         밁
                                                                                                                                                                    δ
                                                                                                                                                                                                                몽
                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-687-875A-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Xiao, Xiao
APPLICANT: Liu, Paul
APPLICANT: Liu, Paul
TITLE OF INVENTION: METHOD AND VECTOR FOR PRODUCING AND TRANSFERRING TRANS-SPLICED PEI
FILE REFERENCE: 00792
CURRENT APPLICATION NUMBER: US/09/687,875A
CURRENT FILING DATE: 2000-10-13
PRIOR APPLICATION NUMBER: 60/158,868
PRIOR FILING DATE: 1999-10-15
                                                                                                                                                                                                                                                                                                                                                                                     Matches 1500;
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: misc feature
LOCATION: (3198)...(3199)
OTHER INFORMATION: S2 junction site
                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                    61 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                      2951 AAACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 3010
                                                                                                    181
                                                                                                                                                                                 121
                      241
                                                                                                                                                                                                                                                                                                                                   1 AGACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                    AAGACTCCAAGGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                              AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                   AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 240
                                                                                                                                         AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 3130
                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      99.9%; Score 1499.4; 99.9%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                                                                                                                                                     ۲.
                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          Length 5952;
                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                         300
                                                                                                                                                                                                                        3070
                                                                3190
                                                                                                                                                                                                                                                                120
```

	3191 TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 3250 301 GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360
RESULT 2 US-09-184-970B-60 IS-09-184-970B-60 IS-Square 60, Application US/09484970B IS-Square 70, 4024186 IS-Square 70, 4024186 IS-Square 70, 4024186 IS-Square 70, 4024186 IS-Square 71, 100, 100, 100, 100, 100, 100, 100,	Oy 1381 ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440

δÃ В

청 음 성

유정

유 성 유 성 유 성

음 성 음

중 음 **상**

B & B & B &

음 성 음 성 상 음 성 음 성

음 성 음

Ś 밁

```
CTGAACTGGCTGCTGAATGTTT 1500
                                                                                                                                                                                                                                                                                                 TGACCGCCTGGAGCAAGAGCACA 1440
               3; Length 13977;
                                                             .1CB1
Indels 0; Gaps
0
```

```
ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                       CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGACCTCAAGCTGCGCCAAGCTGACGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGTACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAACCTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                             ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440
                                                                                                                                                                                                                                          TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                  CCAAAATGACAGAGCTCTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCCAGCATCTCAGCACTTTCCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                 ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 1500
                                                                                                                                                                                                                                                                                                  ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                        9704
                                                                                                                                                                                                                                                             1380
                                                                                                                                                                                                                                                                                                                                                                                    9524
                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                               9464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8744
                                                            9764
                                                                                                                                                                                                                       9644
                                                                                                                                                                                                                                                                                                       9584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
FILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CL001307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-10-03
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2804
LENGTH: 7070
TYPE: DNA
ORGANISM: Human
US-09-949-016-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
US-09-949-016-2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                             F
                                                                     S
                                                                                                                       밁
                                                                                                                                                ð
                                                                                                                                                                                                밁
                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 99.8
Best Local Similarity 99.8
Matches 1499; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2804, Application US/09949016
                                                                                                                                                                                                                                                                                    1805
                                                                                                                                                                                                                                                                                                                                                                 1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1445
                                                                                                                                                            481
                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Þ
AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120
                                                                                                                                                                                                                                                                                                                                                                 GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                              ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                    ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                         ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480
                                                                                                                                                                                                                                                                                                                                                                                            GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                            TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600
                                                                                                                                                                                                                                                                                    AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                       AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGTGGCTACAGCTGAAAGATG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                               99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1497.8; Pred. No. 0; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                           1984
                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                   1804
                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1504
                                                                                                                                                                                                        1924
                                                                                                                                                                                                                                                                                      1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1684
```

Ş 밁 श् 밁 S 밁 δ 밁 8 B á 문 5 밁

841

9045

781

8985

721

8925

8865

661

601

8805

541

밁

9165

901

961

S 밁 δ В δ 문 Ś 밁 Ś 뭐 ঠ 멍 S

1261

9405

9345

9285 1021 9225

1081

밁 Ş

1501

À 1501

음 衫

1381

9645

밁 S 밁

```
RESULT 4
US-09-949-016-2805
; Sequence 2805, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
; FILE REFERENCE: CL001307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     γQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DЪ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                       Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATCCTGCAGACTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATAT CCT GCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ccaaaardacadadcrcraccadrcrraadcrdaccrdaaraardaccrdaaraccaddrrcrcadcrr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĊĠĊĊĀĀĀĊĀĀĀĠŦĠĊĊĊŦĀĊŦĀŦĀŦĊĀĀĊĊĀĊĠĀĠĀĊŦĊĀĀĀĊĀĀĊŦŤĠĊŦĠĠĠĀĊĊĀŦĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĠĊaTTĊAĠĊŢĊŢĊAĊĊĠŢAŢAĀĊĊŢĊĀĠĊĀĊŢĊŢĠĠĀĀĠĀĊĊŢĠĀĀĊĀĊĊĀĠĀŢĠĠĀĀĠĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      redacereaagereces a redacerea de la redacerea 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A G C A G G C T G A G G A G T C A A T A C T G A G T G G G A A A A T T G A A C T G C G C T G A C T G C G C T G A C T G G C T G A C T G G C T G A C T G G C T G A C T G G C T G A C T G G C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G A C T G 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGGACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASSOCIATED OF DETECTION
                                AND USES
                                THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2104
```

吊 Ś 4

781

TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC

중 유

```
CURRENT APPLICATION NUMBER: US/09/949,011
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR PRIOR PRILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASTSEQ for Windows Version 4.
SEQ ID NO 2805
LENGTH: 7070
TYPE: DNA
ORGANISM: Human
US-09-949-016-2805
Ş
                     뭕
                                       Ş
                                                                 밁
                                                                                   Ş
                                                                                                        В
                                                                                                                               Ś
                                                                                                                                                        밁
                                                                                                                                                                          Ş
                                                                                                                                                                                                      밁
                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 1499;
                                                                 2105
                                                                                                             2045
                                                                                                                                                        1985
                                                                                                                                                                                                      1925
                                                                                                                                                                                                                                                 1865
                                                                                      661
                                                                                                                                                                                                                                                                                             1805
                                           721
                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                 1625
                                                                                                                                                                              541
                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1445
                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGC
                                                                                                     AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAAGGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                             TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                ATGTĀCĀTĀGGGCCTTCĀĀGĀGGĀĀTTGĀĀĀĀĀCTĀĀĀGĀĀCCTGTĀĀTCĀTGĀGTĀCTC
                                                                                                                                                                                                          ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                      ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                         ATGAÁTTÁAGCCGGCAGGCÁCTÁTTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAÁCG
                                                                                                                                                                                                                                                                                    AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                               GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                            TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                           TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCTCACACAAGATGTTTATCACAAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAGAACATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1497.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ,
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                         2164
                                  780
                                                                               720
                                                                                                     2104
                                                                                                                            660
                                                                                                                                                                                              1984
                                                                                                                                                 2044
                                                                                                                                                                       600
                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                          1924
                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                    1864
                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                 1804
                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                             1744
                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                         1684
                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
```

ί

5 밁 δ

В á 밁

```
Sequence 2806, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER
FILE REFERENCE: CLOOL307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-3

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

PRIOR SEQ ID NOS: 207012

SOFTWARE: FRSECEQ for Windows Version 4.0

LENGTH: 7070
                                                                                                                                                                                                                                                                                                                         RESULT 5
US-09-949-016-2806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2705
                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2225
                                                                                                                                                                                                                                                                                                                                                                                             2945 A 2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCCAGCATCTCAGCACTTTCCTTTCCACGTCTGGGGTCCCTGGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCTCTGAAAAGAGAACGTGAGCCACGTCAATGACCTTGCCCCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                           THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2344
                                      밁
                                                                8
                                                                                                          맑
                                                                                                                               δ
                                                                                                                                                                밁
                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                         2345
                                                                                                          2285
                                                                                                                                                                          2225
                                                                                                                                                                                                                                             2165
                                                                                                                                                                                                                                                                                                             2105
                                                                                                                                                                                                                                                                                                                                                                              2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1499; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                       901
                                                                                                                                           841
                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
        GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                         CGCCTCTGAAAGAGAACGTGAACCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                          TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                          TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                            TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                          TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                              AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGC
                                                                                                                                                                                                                                                                                                             AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                              AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                    AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGGAAGCGTCTGCACCTTTCCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCTCACACAAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAACTCATAGATTACTGCAACAGTTCCCCCTGGAACATTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                              AGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Score 1497.8; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1504
                                         2404
                                                                                                          2344
                                                                                                                                           900
                                                                                                                                                                            2284
                                                                                                                                                                                                             840
                                                                                                                                                                                                                                              2224
                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                             2164
                                                                                                                                                                                                                                                                                                                                                                                2104
                                                                                                                                                                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                                                                                                                                                                2044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
```

밁 ঠ 문 ঠ 밁 ર્જ 밁 δ 밁

र् 밁 ð 문 5 밁 5 B 8

1141 CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200	Qy	
1081 GTCCAGCATCTCAGGACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGA	Db Oy	ᇙᆖᇙ
1021 TICTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080	Db Qy	Query Match 99.8%; Score 1497.8; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1499; Conservative 0; Mismatches 2; Indels 0; Gaps 0;
961 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020 	Db Qy	S-0
901 CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 960	Db Qy	; NUMBER OF SEQ ID NOS: 207012 ; SOFTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 2807 ; LENGTH: 7070
841 TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAGATTTG 900 	qa	PRIOR APPLICATION NUMBER: 60/237,768 PRIOR FILING DATE: 2000-10-03 PRIOR PRILICATION NUMBER: 60/231,498 PRIOR PRILICATION NUMBER: 60/231,498
781 TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	Qy dd	CURRENT APPLICATION NUMBER: US/09/949,016 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755 PRIOR EILING DATE: 2000-05/241,755
721 AGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780 	Db Qy	APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
661 AGCAGGCTGAGGAGGTCAATACTGAGTGGGGAAAAATTGAACCTGCACTCCGCTGACTGGC 720 	Qγ Db	US-09-949-016-2807 ; Sequence 2807, Application US/09949016 ; Patent No. 6812339 ; CENERAL, INCOMPATION
601 AGGAGCCCAGAGAGCCTGCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660 	dg Qy	Db 2945 À 2945 RESULT 6
	рb	
1925 ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 1984 541 TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600	Qy Lb	Qy 1441 ACAATTTGGTCAACGICCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 1500 Db 2885 ACAATTTGGTCAACGICCCTCTTGCGTGGATTGTTTGAACTGGACTGG
	Q Q	2825 ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
1865 ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 1924	da	1381 ATATCCTGCAGATTATTAATTGTTTG
	Q B	
	Qy	Db 2705 ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGCCCTTTGCTTGAGCC 1320
	P 8	2645 CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
1685 TGGAAGGTTCCGATGATGCAGTTCCAAAGACGTTTGGATAACATGAACTTCAAGT 300	שמ	1201
	S B	CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
1565 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 1624 181 AAGCTCAACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCC 240	Qy Db	QY 1081 GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGA
	Q \{	Db 2465 TTCTGCAGGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 2524
61 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120	D Oy	2405

Oy 1 AGACITCATAGAITACTGCAACAGTTCCCCCTGGACCTGGAAAACTTTCTTGCCCTGGCTTA 60	; LENGTH: 7070 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-2808 Query Match Best Local Similarity 99.9%; Score 1497.8; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1499; Conservative 0; Mismatches 2; Indels 0; Gaps 0;	LING DATE: 2000-10-20 PLICATION NUMBER: 60/237,76 LING DATE: 2000-10-03 PLICATION NUMBER: 60/231,49 LING DATE: 2000-09-08 LING DATE: 2000-09-08 F SEQ ID NOS: 207012 : FastSEQ for Windows Versi 2808	GENERAL INFORMATION: Craig et al. APPLICANT: VENTER, J. Craig et al. TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF FILE REFERENCE: CL001307 CURRENT FILING DATE: 2000-04-14 CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241 755	Ty 1301 A 1301 Db 2945 A 2945 RESULT 7 US-09-949-016-2808 US-09-949-016-2808 Sequence 2808, Application US/09949016			Db 2585 CGCCAAACHACTCCCTACTATATCAACCACGAAGACTCCAAACAACTTGCTGGGACCATC 2644 Qy 1201 CCAAAATGACAAGTCCTTACCAGTCTTTAGCTGACCTGAATAATGACAACTTCTCAGCTT 1260
25 11 12 12 13	Oy 961 GANTICAGCTCTCACCGTATAACCTCAGGACTCTGAAAGACCTGAAAGACCAGATGAAAGC 1020	841 TCCTCATTGACTCTCCCAAGATCACCTCGAGAAGTCAAGGCACTTCGAGGAAAATTG		Oy 601 AGGAGCCCAGAGAGCTGCCTCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660	Qy 481 ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540	Qy 361 AGTGGAAACGTCTGCACCTTTCTCTGCTGCAGGAACTTCAGCTGCAGAAGATG 420	

1 1		Qy 181 AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 240	Qy 121 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180	Qy 61 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120	15	Query Match 99.8%; Score 1497.8; DB 4; Length 7070; Best Local Similarity 99.9%; Pred. No. 0; Matches 1499; Conservative 0; Mismatches 2; Indels 0; Gaps 0;	; LENGIH: 7070 ; TYPE: DNA ; ORGANISM: Human US-09-949-016-2809	ro.	; PRIOR APPLICATION NUMBER: 60/237,768 ; PRIOR FILING DATE: 2000-10-03 ; PRIOR FILING DATE: 2000-10-03 ; PRIOR APPLICATION NUMBER: 60/231,498	CURRENT FILING DATE: 2000-04-14 PRIOR APPLICATION NUMBER: 60/241,755	; GENERAL INFORMATION: ; APPLICANT: VENTER, J. Craig et al. ; TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED ; TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF ; FILE PERFERENCE, CTOALOGS	US-09-949-016-2809 ; Sequence 2809, Application US/09949016 ; Patent No. 6812339		Db 2885 ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTCTCAACTGGCTGCATGTTT 2944 OY 1501 A 1501	1441	QY 1381 ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGGAAGAGCACA 1440 Db 2825 ATATCCTGCAGATTAATTAATTGTTTTAACCACTATTTTATGACCGCCTGGAGCAAGAGCACA 1440	Db 2765 TGTCAGCTGCATGTGATGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGG 2824
ob Qy Qy	\$ \$ \$) B &	D Qy	Db Qy	Дb	Db Qy	Qy db	D Qy	Db Qy	gg dy	Db Db	Qy Db	Qy Db	D Q	Db	\$ E	
2825 ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 2884 1441 ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATTGTGTCTGAACTGGCTGCAATGTTT 1500	1321 "GIUNACTIGUATIGUATIGUTIGANCAGCACAACCTICAAGCAAAATIGACCAGCCCATIGG 1380	261 ATAGG	1201 CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACTGAATAATGTCAGATTCTCAGCTT 1260 	1141 CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200 	1081 GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT 1140	1021 TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080	961 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020 	901 CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 960 	841 TCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900 	781 TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	721 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780 	661 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCGGCTGACTGGC 720 	601 AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660 	541 TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600 	ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 1	1865 ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 1924 481 ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540	421 ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480

```
Sequence 2810, Application US/09949016
; Patent No. 6812339
; GENERAL INFORMATION:
; APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF FILE REFERENCE: CLOOL307
; CURRENT APPLICATION NUMBER: US/09/949,016
; CURRENT FILING DATE: 2000-04-14
; PRIOR APPLICATION NUMBER: 60/241,755
; PRIOR APPLICATION NUMBER: 60/237,768
; PRIOR FILING DATE: 2000-10-03
; PRIOR FILING DATE: 2000-09-08
; NUMBER OF SEQ ID NOS: 207012
; SOFTMARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2810
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2810
                                                                          중 유 정
                                                                                                                                                                   5
                                                                                                                                                                                          밁
                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                           ঠ
                                                          밁
                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
US-09-949-016-2810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 1499; Conservative
                                                                                                                                                                                                                                                                                              1625
                                                                                                                                                                                                                                                 1685
                                                                                                                                                                                                                                                                                                                                                                                                                                       1445
                                                                                                                                                                                                   1745
                                                                                                        1865
                                                                                                                                                      1805
                                                                                                                                                                                                                                                                                                                                           1565
                                                                                                                                                                                                                                                                                                                                                                                         1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2945
                                                                                                                                                                            361
                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                    181
                                                                                 481
                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۳
                                                                                                                                                                                                                GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACCTTGGAAAAGTTTCTTGCCTGGCTTA 60
                          TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600
                                                          ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                      AGTIGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                 AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                   GGAGTGAACTTCGGAAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                            TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300
                                                                                                                                                                                                                                                                                             AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAACCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                    AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                           AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                  AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                    ANACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Þ
                                                                                                        ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 1497.8; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASSOCIATED
OF DETECTION AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       THEREOF
                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                 540
                                                                                                        1924
                                                                                                                                                      1864
                                                                                                                                                                                                   1804
                                                                                                                                                                                                                                                 1744
                                                                                                                                                                                                                                                                                              1684
                                                                                                                                                                                                                                                                                                                                           1624
                                                                                                                                                                                                                                                                                                                                                                                         1564
                                                                                                                                                                                                                                                                                                                                                                                                                                      1504
              2044
                                                           1984
                                                                                                                               480
                                                                                                                                                                             420
                                                                      RESULT 10
US-09-949-016-2811
                                                                                                                                   ð
                                                                                                                                                                 뮍
                                                                                                                                                                                 8
                                                                                                                                                                                                      片
                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
Sequence 2811, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION
```

```
2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
À 2945
                                                                                                                                                                                                                                                                                                                                                                  CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT 1140
                                    À 1501
                                                                                                                                             ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAGAGCACA
                                                                                                                                                                                                                                          TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                 ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                               ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                       TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                  1320
                                                                            2944
                                                                                                            1500
                                                                                                                                                2884
                                                                                                                                                                                   1440
                                                                                                                                                                                                                         2824
                                                                                                                                                                                                                                                         1380
                                                                                                                                                                                                                                                                                               2764
                                                                                                                                                                                                                                                                                                                                                                                                                                            2644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
```

AND USES

THEREOF

```
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILLING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASESEQ for Windows Version 4.0
PUDD: NNO 2811
LENGTH: 7070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 1499; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Human
-09-949-016-2811
                                                                                                                                             2105
                                                                                                                                                                                                                                   2045
                                                                                                                                                                                                                                                                                                                            1985
                                                                                                                                                                                                                                                                                                                                                                                                                  1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1865
                                                                                                721
                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1745
                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1625
                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
                                   AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAAGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                        AGCAGGCTGĀGGAGGTCĀĀTĀCTGĀĠTĠGGĀĀĀĀĀTTGĀĀCCTGCĀCTCCGCTĠĀCTĠĠĊ
                                                                                                                                                  AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                AGGAĞCCCAGAGAĞCTĞCCTCCTĞAĞĞAĞAĞAĞCCCAĞAATĞTCACTCGĞCTTCTACĞAA
                                                                                                                                                                                                                                          AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                 TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                       ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGAĀTTĀĀĠĊĊĠĠĊĀĠĠĊĀĊĊŤĀŤTĠĠĀĠĠĊĠĀĊŤŤŤĊĊĀĠĊĀĠŤŤĊĀĠĀĀĠĊĀĠĀĀĊĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360
                                                                                                                                                                                                                                                                                                                                                                                                             ATGTACATAGGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TĠĠAĀĠĠŦŦĊĊĠĀŦĠĀŦĠĊĀĠŦĊĊŦĠŦŦĀĊĀĀĀĠĀĊĠŦŦŦĠĠĀŦĀĀĊĀŦĠĀĀĊŦŦĊĀĀĠŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGACTCCAAGGGAGTAAAAGAGCTGATGAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99.8%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                          rcaagagggaatrigaaaacraaagaaccrgraarcargagracrc 1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9: Score 1497.8; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7070;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                              780
                                                                                                                           2164
                                                                                                                                                                   720
                                                                                                                                                                                                                2104
                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                       2044
                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
Sequence 2812, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND

FILE REFERENCE: CLOO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOSTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGCATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rerealectecaterea recentración de la recentración d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAAATGACCAGGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGAACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TĊĊŦĊĀŦŦĠĀĊŦĊŦĊĊĊĀĀĠĀŦĊĀĊĊŦĊĠĀĠĀĀĀĠŦĊĀĀĠĠĊĀĊŦŦĊĠĀĠĠĀĠĀĀĀŦŦĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                          AND USES
```

2824

2764 1380

1260 2704

1200

2644

1140

2524 1080 2464 1020 960 2344 900 2284 840

2404

2584

Ś 밁 Ś 밁 Ş 밁 Ş 뭐 Ś 밁 Ş 밁 Ś

S 밁 δ 뫄 Ş 밁 δ В Ş 뭐 Ş 밁

```
밁
                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                          밁
                                                                                                                                                             र्
                                                                                                                                                                                    밁
                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
            S
                                   밁
                                              ર્ફ
                                                                 片
                                                                                   ঠ
                                                                                                     문
                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH: 7109
TYPE: DNA
ORGANISM: Human
5-09-949-016-2812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 1499; Conservative
                                                                       2225
                                                                                                           2165
                                                                                                                                                2105
                                                                                                                                                                                     2045
                                                                                                                                                                                                                          1985
                                                                                                                                                                                                                                                               1925
                                                                                                                                                                                                                                                                                                    1865
                                                                                                                                                                                                                                                                                                                                        1805
                                                                                                                                                                                                                                                                                                                                                                            1745
                                                                                                                                                                                                                                                                                                                                                                                                                1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1445
                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                  661
                                                                                                                                                                                                       601
                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                        781
                                                    841
                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                              TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660
                                                                                                                                                                                                                          AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                             GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                      GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360
                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
        CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                            TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                       AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                 TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                             AGAGAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                       AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1497.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 7109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                 1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                      1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                  960
                                                                                          840
                                                                                                                                780
                                                                                                                                                2164
                                                                                                                                                                    720
                                                                                                                                                                                     2104
                                                                                                                                                                                                                          2044
                                                                                                                                                                                                                                                               1984
                                                                                                                                                                                                                                                                                                    1924
                                                                                                                                                                                                                                                                                                                                                                             1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1564
2404
                                   2344
                                                                        2284
                                                                                                             2224
                                                                                                                                                                                                                                                                                                                                        1864
                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                      900
```

```
APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: BOLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES
FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NUMBER: 2000-09-08
NUMBER OF SEQ ID NUMBER: 007231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NUMBER: 007231,498
PRIOR FILING DATE: 2000-09-08
NUMBER: PASTESEQ FOR WINDOWS VERSION 4.0
SEQ ID NO 2813
LENGTH: 7109
TYPE: DNA
ORGANISM: Human
US-09-949-016-2813
밁
                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
US-09-949-016-2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 2813, Application US/09949016 Patent No. 6812339
                                                           Query Match 99.8%;
Best Local Similarity 99.9%;
Matches 1499; Conservative
1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2945 A
                             -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080
 AAACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTTCTTGCCTGGCTTA 1504
                  AGACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTCAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAAATGACCAGCCCATGG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                           Score 1497.8;
Pred. No. 0;
0; Mismatches
                                                             ٥,
                                                                                             DB
                                                             2
                                                                                             4
                                                               Indels
                                                                                             Length
                                                               0
                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                       USES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2464
                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2584
```

Ş

```
1021
                                                                                                                                                                                                                                                                                                                  2345
                                                                                                                                                                                                                                                                                                                                                                                                                     2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2105
                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1925
                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
             TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                        TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                            GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGC
                                                                                                                                                                                                                            GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                               CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   redacercia a de la como de la com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGAGAAAAATAGATGAGACCCTTGAAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGAGCCCAGAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGGAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCTCACACAAGATGTTTATCACAACCTGGATGAAAAAGAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGACTCCAAGGGAGTAAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                           2524
                                                                                                                                           1080
                                                                                                                                                                                              2464
                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                               2404
                                                                                                                                                                                                                                                                                                                                                                                                2344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2164
                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1564
Ş
                                                           뭉
                                                                                                   Ş
                                                                                                                                                         망
                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
```

밁 S 8 5 В Ş Д δ 밁 Ş Вb Ş 멍 δ 밁 Ş 밁 Ş 망 Ś 밁 δ 뮍 Ś ₽ Ş В δ В Ş 밁 Ś 망 Ś

```
Sequence 2814, Application US/09949016

Patent No. 6812339

GENERAL INFORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES

FILE REFERENCE: CLOOL307

CURRENT PILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FASTSEQ for Windows Version 4.0

LENGTH: 7109
             뮍
                                                                                                                                                                                                                                                                                                                                                                     ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 13
US-09-949-016-2814
                                                                                                                                                                                                                                                                                               Query Match
Best Local Simi
Matches 1499;
           1625
                                                                                 1565
                                                                                                                                                      1505
                                                                                                                                                                                                                            1445
                                             181
                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2945 A 2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2705
                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                    1 AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                  Similarity
                 AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                         AAGACTCCAAGGGAGTAAAAGAGCTGATGAAGAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                            CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                               CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                 AAACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ccaaaargacagagereriaecagrerriagergacergaaraargreagarrereagerr
                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                            99.8%;
                                                                                                                                                                                                                                                                                           ; Score 1497.8; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                           DB 4;
                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                           Length 7109;
                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USES
                                                                      1624
                                                                                                                                            1564
                                240
                                                                                                                                                                                                                   1504
                                                                                                          180
                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
```

٠,

유정

중 음 원

```
1141
                                                                                                                                                                                      2525
                                                                                                                                                                                                                                                  2465
                                                                                                                                                                                                                                                                                                                2405
                                                                                                                                                                                                                                                                                                                                                                          2345
                                                                                                                                                                                                                                                                                                                                                                                                                                         2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2165
                             1261
                                                                                           1201
                                                                                                                        2585
                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1745
                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                         106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360
CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 1260
                                                                                                                                          CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                      GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                      GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                  TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                    TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                          CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                               CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAGAAAAATAGATGAGACCCTTGAAAGACCTCCAGGAACTTCAAGAGGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAGAAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                       1200
                                                                                                                                                                                                                                                  2524
                                                                                                                                                                                                                                                                                 1080
                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                             2704
                                                                                                                         2644
                                                                                                                                                                                      2584
                                                                                                                                                                                                                                                                                                                2464
                                                                                                                                                                                                                                                                                                                                                                            2404
                                                                                                                                                                                                                                                                                                                                                                                                                                        2344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
```

Ś

음 성 음

ঠ

용

밁

8 8 8 8 8 8 8

음 성 음 성

음 성

8 8 8 8 8

```
APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE; METHODS OF DETECTION AND USES THEREOF

FILE REPERENCE: CL001307

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FRASTSEQ for Windows Version 4.0

SEQ ID NO 2815

LENGTH: 7109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2815
               5
                                                      В
                                                                             δ
                                                                                                                밁
                                                                                                                                    5
                                                                                                                                                                        밁
                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 14
US-09-949-016-2815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2815, Appli
Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 1499; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                        1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1501
                          361
                                                                                                                                                                                                                                                                  121
                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                               CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120
                                                                                                                                                                                                                                                                                                                                                        AAACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                        AGACTCATAGATTACTGCAACAGTTCCCCCCTGGAACCTTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      À 2945
                                                       AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                     AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                               CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440
                                                                                                                                 TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
             AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                       AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                               99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                ; Score 1497.8; pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                 ۲.
د
                                                                                                                                                                                                                                                                                                                                                                                                                                                4.
                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                7109;
                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                           420
                                                                                                                                               300
                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                          1504
 1864
                                                         1804
                                                                                                                   1744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1500
                                                                                     360
                                                                                                                                                                             1684
                                                                                                                                                                                                                                       1624
                                                                                                                                                                                                                                                                                               1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
```

421

541

THEREOF

```
ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC 1320
                                                                                                                                                                                                                                                                                                                                                     rereascrecarer are received a consequencia de la consequencia dela consequencia del consequencia
                                                                                                                                                                                                                                                                                                                                                                                                         TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCAAAATGACAGAGCTCTAACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gcattcagctctcaccctrataacctcagcactctggaagacctgaacaccagatggaagc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      redaccrcaaecrececcaaecreaecrarcaaegarccreecaeccecereecarc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGAGAAAATAGATGAGACCCTTGAAAGACTCCGGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a de cada de trades de la como dela como de la como dela como de la como dela como de la como de la
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                       1500
                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                         2884
                                                                                                                                                                                                                                                                                                                                                     2824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: VENTER, J. Craig et al.

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THER

FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR APPLICATION NUMBER: 60/231,768

PRIOR APPLICATION NUMBER: 60/231
                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; LENGTH: 7109
; TYPE: DNA
; ORGANISM: Human
US-09-949-016-2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
US-09-949-016-2816
; Sequence 2816, Applica
; Patent No. 6812339
; Patent INFORMATION:
                                                                                                                                     밁
                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 1499; Conserv
                                                                                                                                     1925
                                                                                                                                                                                                                                                                                                     1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1625
                                                        541
                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1445 AAACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 1504
                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         19
TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                           ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                           ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                           agtigaagegreteeaectiteeteeteeaggaactitetegtegeetaeageteaaagatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGCTGAAACAGCTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ⊳
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1497.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>ب</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
```

0, Gaps

2345

901

2225

841

Вb Š 밁 Ş 유정 밁 δ 밁 S B Ś 밁 Ş В δ 뮍 8 Ъ Ş В Ś 밁 Ś 밁 δ 뮍 δ 뫄 5 문 δ дь Ś 5

1321

480

1864

1804 360 1684

1624

1984 600

1261 2645 1201

음 성

	01 A 1501 	9 5 6
GTTT 15	1 ACAATTIG	8 4 8
CAAGAGCACA 144 CAAGAGCACA 288	81 ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAG	138:
CAGCCCATGG 138 CAGCCCATGG 282	21 TGTCAGCTGCATGTGATGCCTTGGACCAGCACCACCTCAAGCAAAATGACCAGC	
CTCTTGAGCC 132 CTCTTGAGCC 276	61 ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGAT(126: 270:
TTCTCAGCTT 126	01 CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGG	
TGGGACCATC 120 TGGGACCATC 264	41 CGCCAAACAAAGTGCCCTI 	114; 258;
AGAGCCATCT 114 AGAGCCATCT 258		52
NGGGACTTTG 108 NGGGACTTTG 252	21 TTCTGCAG	102: 246!
NGATGGAAGC 102 NGATGGAAGC 246	61 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGG.	
ACCACTTIGG 960 accacttigg 240	45	
GGAGAAATTG 900 GGAGAAATTG 234	41 85	84: 228:
STGGGCGATC 840 STGGGCGATC 228	81 T	781 2221
ACGGATGAGC 780 ACGGATGAGC 222	21 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATV	
GCTGACTGGC 720 CTGACTGGC 216	actgagtggaaaaattgaacctgcactcc 	66: 210:
CTTCTACGAA 660 CTTCTACGAA 210	01 AGGAGC	

8 8 8 8 8 8 8 8 8 8 8

중 음

Search completed: March 2, 2005, 07:48:36 Job time: 269.233 secs

8 8 8

8 8 8 8

,			
	·		

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic -
                                                                                                                                                                                                                                                                                                                                                               Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BB BB
                                                                                                                                                                       1499.4
                                          1499.4
1499.4
1499.4
1499.4
                                                                                                                                                                                                                                                        Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic search, using sw model
                        100.0
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
00.00
                                                                                                                                                                                                                                                        Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-845-416-2_COPY_2000_3500
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5394803 seqs, 2962729879 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           March 2, 2005, 06:35:12 ; Search time 897.381 Seconds
                                                                                                                                                                                                                                                                              Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10:
11:
12:
13:
14:
15:
16:
18:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published_Applications_NA:*

| // Ggn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
| // Cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
| // Ggn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
| // Cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
| // Ggn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
| // Ggn2_6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                agactcatagattactgcaa.....aactggctgctgaatgttta 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               / cgm2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US09S_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US09_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ cgm2_6/ptodata/2/pubpna/US10F_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cgn2
                                                                                                                                                                                                                                                        Length
                    5060
8689
11058
11443
12057
                                                                                                                           4825
4848
                                                                                                                                                                                                                                                                                                                                                                                                                                                    6/ptodata/2/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                                                                                            B
    10
10
10
10
10
17
17
                 US-09-845-416-2

US-09-845-416-27

US-09-845-416-29

US-09-845-416-29

US-09-845-416-36

US-09-845-416-36

US-10-149-736-42

US-10-149-736-42

US-10-149-736-47
                                                                                                                                                                                                                                                            占
                                                                                                                                                                                                                                                                                                                         SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (without alignments)
9911.195 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10789606
                                                                                                                                                                                                                                                        Description
               Sequence 2, Appli
Sequence 27, Appl
Sequence 9, Appli
Sequence 29, Appl
Sequence 35, Appl
Sequence 36, Appl
Sequence 42, Appl
Sequence 41, Appli
Sequence 44, Appl
Sequence 47, Appl
22,
```

ALIGNMENTS

```
뭉
                                                                       Ş
                                                                                                                       밁
                                                                                                                                                          S
                                                                                                                                                                                                                                                                                        ; LENGTH: 4182
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-845-416-2
                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.1
150 DNO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                       Matches 1501;
                                                                                                                                                                                                                         Query Match
Best Local Similarity
                                                                                                                     2000 AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTTGGAAAAGTTTCCTTGCCTTGGCTTA 2059
121 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                              61
                                                                                                                                                                _
                                                                 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120
                                                                                                                                             AGACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                     100.0%; Score 1501;
100.0%; Pred. No. 0;
tive 0; Mismatches
                                                                                                                                                                                                                                               DB 10;
                                                                                                                                                                                                     <u>.</u>
                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                            Length 4182;
                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                   Gaps
                                       2119
```

3379

1440

1320

3319 1380

```
1081
                                                                                                                                                                                                                  3020
                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                     2960
                                                                                                                                                                                                                                                                                                                                                       2900
                                                                                                                                                                                                                                                                                                                                                                                                                         2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2600
                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
         CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                     CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                               grecadeareteadeactrretrrecacerereteades receided adadades exterior
                                                                                                                                                    GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGC
                                                                                                                                                                                                     TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                         TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080
                                                                                                                                                                                                                                                                                                                                          CĠĊĊŦĊŦĠAĀĀĠĀĠĀĠĊĠŦĠĀĠĊĊĀĊĠŦĊĀĀŦĠĀĊĊŦŦĠĊŦĊĠĊĊĀĠĊŦŦĀĊĊĀĊŦŤŦĠĠ
                                                                                                                                                                                                                                                                                                                                                                CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                       ĠĊĀŦŦĊĀĠĊŦĊŦĊĀĊĊĠŦĀŦĀĀĊĊŦĊĀĠĊĀĊŦĊŦĠĠĀĀĠĀĊĊŦĠĀĀĊĀĊĊĀĠĀŦĠĠĀĀĠĊ
                                                                                                                                                                                                                                                                                                                                                                                                            TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACCTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGTGAÁCTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCTCACACAGATGTTTATCACAAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                               3199
                                                                                                                                   3139
                                                                                                                                                                    1140
                                                                                                                                                                                                     3079
                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                        3019
                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                            2959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2779
                                                                                                                                                                                                                                                                                                                                                                                                            2899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: XIAO, XIAO

FITTLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND ITITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2001-04-28

NUMBER OF SQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 27

LENGTH: 5149

TYPE: DNA

ORGANISM: Homo Bapiens
         S
                                        В
                                                                       Ş
                                                                                                             밁
                                                                                                                                     Ş
                                                                                                                                                                             В
                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-845-416-27
US-09-845-416-27
; Sequence 27, Application US/09845416
; Publication No. US20030171312A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches 1501;
                                          3057
                                                                                                             2997
                                                                                                                                                                               2937
                                                                                                                                                                                                                                                   2877
                                                                                                                                                                                                                                                                                                                      2817
                                                                                                                                                                                                                                                                                                                                                                                          2757
                                                                          301
                                                                                                                                            241
                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3200
                                                                                                                                                                                                                                                                                                                                                       61
AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                    GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGGCCAGTTCTGACC
                                                                                                  TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                          AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC 240
                                                                                                                        TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                      AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                           CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                        AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                            AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                                                                 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                   AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACATTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                             AGACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAAGTTTCTTGCCTGGCTTA 2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           À 3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAATTTGGTCAACGTCCCTCTCTCCGGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTCAGCTGCATGTGATGCCTTGGACCAGCACCACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTTAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 3259
                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
```

<u>,</u>

60

뫄 δ 뮹 Ś В S 뮹 δ. В S 밁 δ 멍 Ś д Ş В δ В Ş В δ ₽ Ş 밁 δ 밁 Ś 밁 Ś В Ś 밁 Ś

360 3056

300

2996

2936

2876 120

```
ঠ
                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                 吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
              δ
                                       밁
                                                           Ś
                                                                                       밁
                                                                                                         ક
                                                                                                                                  밁
                                                                                                                                                           δ
                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                             3897
                                                                                                                                                                                                                                                                                              3837
                                                                                                                                                                                                                                                                                                                                               3777
                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                        1021
                                                                                                                                                                                                                                                                                                                                                                                                3717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3597
               1441
                                       4137
                                                                                        4077
                                                                                                                                         4017
                                                                                                                                                                                            3957
                                                                                                                                                                                                                                                                                                                                                                                                                                                  3657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3177
                                                                                                                1321
                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3117
                                                                                                                                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 1500
                                                                                                                                                                                                                                                          CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200
                                                                                                                                                                                                                                                                                                          TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080
                                                                                                                                                                                                                                                                                                                                                                                                              GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                    ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440
                                                                                         TGTCAGCTGCATGTGATGCCTTGGACCAGCACCACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                       TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                         ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                          ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC 1320
                                                                                                                                                                                          CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                   CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 1260
                                                                                                                                                                                                                                                                                              GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                               TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 3776
                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGCCCAGAGAGACTGCCTCCTGAGGAGAGAGACCCCAGAATGTCACTCGGCTTCTACGAA 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                        ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 3356
                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                               3836
                                                                                                                                                                                                                                                                                                                                                                                                                                                   3716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                       4196
                                                                                        4136
                                                                                                                                         4076
                                                                                                                                                                                           4016
                                                                                                                                                                                                                                             3956
                                                                                                                                                                                                                                                                                              3896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3176
                                               ð
                                                                           밁
                                                                                                                          밁
                                                                                                                                                  8
                                                                                                                                                                              밁
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                         밁
                                                                                                 Ś
                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                              2096
                                                                                                                                                                               2036
                                                                                                                                                                                                                                1976
                                                                                                                                                                                                                                                                                  1916
                                                                                                                                                                                                                                                                                                                                   1856
                                                                                                                                                                                                                                                                                                                                                                                     1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4197
                                                                                                     481
                                                                                                                                                       421
                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
```

```
; TYPE: DNA
; ORGANISM: Homo
US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 3
US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQ ID NO 9
LENGTH: 3858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION APPLICANT: XIAO, X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 9, Application US/09845416 Publication No. US20030171312A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE.
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4257 À 4257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 AGACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                           ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCTCACACAGATGTTTATCACAAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          À 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 4256
AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                   TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                            ATGAATTAAGCCGGCAGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                      ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                               AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                               GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAAGCTGAAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                   ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                         AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 1499.4; pred. No. 0; o; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
660
                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1735
                                                                                      600
                                                                                                                                      2215
                                                                                                                                                                                                                              2155
                                                                                                                                                                                                                                                                                                                         2095
                                                                                                                                                                                                                                                                                                                                                                                                                  2035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1795
                                             2275
                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1855
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
```

```
RESULT 4

US-09-845-416-29

Sequence 29, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DNA SEQUENCE ENCOLUMN FILE OF INVENTION: THEREOF

FILE REFERENCE: DE1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Д
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Дb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                        3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                        Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ν.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  r Greader de la recentrada de la recentr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tretigeaggregice de la compara de la compara
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĠĊATTĊAĠĊŦĊŤĊĀĊĊĠŦĀŦĀĀĊĊŦĊĀĠĊĀĊŦĊŦĠĠĀĀĠĀĊĊŦĠĀĀĊĀĊĊĀĠĀŤĠĠĀĀĠĊ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  récreatrigaerer et el recea da la recerció de la composition de la recentión d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                        3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rgaaagagaacertasecacercaargacerrectececaecrraceaetrreg
                                                                                  ENCODING
                                                                               Þ
                                                                               DYSTROPHY
                                                                           MINIGENE
                                                                        AND
                                                                        USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
Ő
                                                          뮍
                                                                                                                 δ
                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Sim
Matches 1500;
                                                              3213
                                                                                                                                                                                             3153
                                                                                                                                                                                                                                                                                                                             3093
                                                                                                                                                                                                                                                                                                                                                                                                                                                             3033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2673
                                                                                                                            781
                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ı
```

```
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOUTWARE: PatentIN Ver. 2.1
SEQ ID NO 29
LENGTH: 4825
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-29
TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                    TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                     AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                               AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                    AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                            TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                              AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                    AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                           AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                     TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGACTCCAAGGGAGTAAAAAGAGCTGATGAAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGCTGAAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       acacteatagatractigeaacagtrececetiggacetiggaaaaagtrietrigeetiggetta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACCTTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGACTCCAAGGGAGTAAAAGAGCTGATGAAGAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99.9%;
nilarity 99.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4825;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                               840
                                                                                                                                                                                                       3152
                                                                                                                                                                                                                                                                                      3092
                                                                                                                       3212
                                                                                                                                                                780
                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                     3032
                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
```

	; PRIOR FILING DATE: 2000-04-28 ; NUMBER OF SEQ ID NOS: 36 ; SOFTWARE: PATENTIN Ver. 2.1 ; SEQ ID NO 35 ; LENOTH: 4848 ; TYPE: DIA ; ORGANISM: Homo sapiens	FILE REFERENCE: DE1142 FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777	, Publication No. US20030171312A1 ; GENERAL INFORMATION: ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE . TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE	RESULT 5 US-09-845-416-35 ; Sequence 35, Application US/09845416	Db 3933 A 3933	1441 AC 3873 AC	191 AIAICCIGCNOAIIAIIAAII911IIACCACIAIIIAIACCGCCIGGAGCAAGAGCACA	1321 TGTCAGCTGCATGCCTTGGACCAGCCAACCTCAAGCAAAATGACCAGCCCATGG	1261 ATAGGACTGCCATGANACTCCGANAGACTGCAGANGGCCCTTTGCTTGGATCTCTTGANGCC	1201 CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT	QY 1141 CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200	QY 1081 GTCCAGCACTTCAGCACTTTCTTTCCACGTCTGCAGGGTCCCTGGGAGAGACCCATCT 1140	Qy 1021 TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080	GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGG	Db 3333 CGCCTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 960	3273 TCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
1021 TTCTGCAGGTCGCCGTCGAGGACCGAGTCAGGCAGCGAGCTGCAGGGACTTTG	Oy 901 GCCCTCTGAAAGAACGTGAGCCACGTCAATGACCTTCGCCAGCTTACCACTTTGG 960	41 TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG	Qy 781 TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	Qy 721 AGAGAAAATAGATGAGACCCTTGAAAGACTCCAAGGAACTTCAAGAGGCCACGGATGAGC 780	Qy 661 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC 720	QY 601 AGGAGCCCAGAGAGCTGCCTCGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660	Qy 541 TIGAGACTGTACGAATATTTCTGACAGAGCCTTTGGAAGGACTAGAGAAACTCTACC 600	QY 481 ATGTACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTC 540	Qy 421 ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480	361 2816	Qy 301 GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360	Qy 241 TGGAAGGTTCCGATGAAGACGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300	Qy 181 AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC 240	121 2576	Qy 61 CAGAAGCTGAAACACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120	Qy 1 AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACTGGAAAAGTTTCTTGCCTGGCTTA 60

	2728 121 2788.		Query Match 99.9%; Score 1499.4; DB 10; Length 5060; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	S-0	NUMBER OF SEQ ID NOS: 36 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 36 LENGTH: SEC ID NO 36	CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777	APPLICANT: XIAO, XIAO TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF FILE REFERENCE: DRIVE	US-09-845-416-36 ; Sequence 36, Application US/09845416 ; Publication No. US20030171312A1 ; GENERAL INFORMATION:	Db 3956 A 3956	1501	ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 1	QY 1381 ATATCCTGCAGACTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440			1261	ш	UY 1141 CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200	3536
Oy 1261 ATAGGACTGCCATGAAACTCC	3808 1201 3868	Qy 1081 GTCCAGCATCTCAGCACTTTC	1021 3688	Qy 961 GCATTCAGCTCTCACCGTATU	Qy 901 CGCCTCTGAAAGAGAACGTG. { Db 3568 CGCCTCTGAAAGAGAACGTG.	Qy 841 TCCTCATTGACTCTCTCCAA Db 3508 TCCTCATTGACTCTCTCCAA	Qy 781 TGGACCTCAAGCTGCGCCAA 	Qy 721 AGAGAAAAATAGATGAGACC Db 3388 AGAGAAAATAGATGAGACC	Qy 661 AGCAGGCTGAGGAGGTCAAT	3268	Db 3208 TTGAGACTGTACGAATATTT	Db 3148 ATGTACATAGGGCCTTCÀÀC Qy 541 TIGAGACTGTACGAATATTT	481	Qy 421 ATGAATTAAGCCGGCAGGCJ Db 3088 ATGAATTAAGCCGGCAGGCJ	3028	Db 2968 GGAGTGAACTTCGGAAAAAA Ov 361 AGTGGAAACCTTTGGAACTTT	Qy 301 GGAGTGAACTTCCGATGAAAAA	241
	CCCAAAATGACAGAGCTCTACCAGTCTTTAGCTGGCTGAAATAATGTCAGATTCTCAGCTT 3927		TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080	GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020 	CGCCTCTGAAAGAAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 960	TCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900	TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	AGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780 	AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGGACTCGGCTGACTGGC 720	AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660	·ω	AGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 3207 CTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600		ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480	AGTGGAAGGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTGAAAGATG 420		NGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 2967 GTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360	TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300

Qy 241 TGGAAGGTTCCGATGATGCAGTCCTGTTACAAGACGTTTGGATAACATGAACTTCAAGT 300	Qy 121 AAGACTCCAACGGAGTAAAAGACCTGGTGAAACAATTGCCAAGACCTCCCAAGGTGAAATTG 180	2997 AAACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 61 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCCTACCCGTAAGGAAAGGCTCCTAG [3 0 0	ORGAN FEATU OTHER	; SOFTMARE: Patentin version 3.1 ; SEQ ID NO 42 ; LENGTH: 8689	PRIOR PILING DATE: 2001-10-04 PRIOR APPLICATION NUMBER: 60/238,848 PRIOR FILING DATE: 2000-10-06 NUMBER OF SEO ID NOS: 96	FILE REFERENCE: UM-06968 FILE REFERENCE: UM-06968 CURRENT APPLICATION NUMBER: US/10/149,736 CURRENT FILING DATE: 2002-06-17 PBTOB APPLICATION THERE DESCRIPTION OF THE PROPERTY OF THE PRO		RESULT 7 US-10-149-736-42 US-10-149-736-42 ; Sequence 42, Application US/10149736 : Sphication US/00302163324	A-2	1501		Db 3988 TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG 4047
Q B Q B Q	מם עס אם	S B S B	& & &	B &	g Qy	D Qy	₽ <i>&</i>	D &	D Q	D Q	B &	B &	D Q
131 IGITAGCIGCAIGIGANGCCTICGACCAGACACACCCAAGCCAAAATIGACCAGCCCAIGG 1380 4317 IGICAGCIGCAIGIGAIGCCTIGGACCAGCCACACCICAAGCAAAATIGACCAGCCCAIGG 1380 4317 IGICAGCIGCAIGIGAIGCCTIGGACCAGCACAACCICAAGCAAAATGACCAGCCCAIGG 4376 1381 ATAICCIGCAGATTATTAATTGTTTGACCACCTATTTATGACCGCCTGGAGCAAGAGCACA 1440 1377 ATAICCIGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 4436 4377 ATAICCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 4436 1441 ACAATTTGGTCAACGTCCCTCTCTGCGTTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 1500 1441 ACAATTTGGTCAACGTCCCTCTCTGCGTTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 4496 1501 A 1501		4077 GTCCAGCATCTCAGCACTTTCCACCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT 4136 1141 CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200	1021 TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 1080	961 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020 	901 CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCCCGCGAGCTTACCACTTTGG 960	841 TCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAAATTG 900 	781 TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	721 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780	661 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGGACTCGGCTGACTGGC 720	601 AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660	541 TTGAGACTGTACGAATATTTCTGACAGAGCAGCGTTTGGAAGGACTAGAGAACTCTACC 600	481 ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540	421 ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480

밁

```
Sequence 1, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:

APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE

TITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT PILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1

LENGTH: 11058

TYPE: DNA

ORGANISM: Homo sapiens

US-09-845-416-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 8
US-09-845-416-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity
Matches 1500; Conservat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local :
                                                               8657
                                                                                                                                                                            8597
                                                                                                                                                                                                                                                                                         8537
                                                                                                                                                                                                                                                                                                                                                                                                          8477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8237
                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                          AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                          TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                           TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                       ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                            ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                       ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                      ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACCTTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          À 4497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99.9%;
ilarity 99.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 11058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                             8716
                                                                                                 660
                                                                                                                                                          8656
                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                          8596
                                                                                                                                                                                                                                                                                                                                                                                       8536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8356
                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
RESULT 9
US-10-149-736-44

¡ Sequence 44, Application US/10149736
¡ Publication No. US20030216332A1
¡ GENERAL INFORMATION;
¡ APPLICANT: Chamberlain, Jeffrey S.
¡ APPLICANT: Harper, Scott Q.
¡ TITLE OF INVENTION: Mini-Dystrophin Nucleic Ac:
¡ FILE REFERENCE: UM-06968
¡ CURRENT APPLICATION NUMBER: US/10/149,736
¡ CURRENT FILING DATE: 2002-06-17
¡ PRIOR APPLICATION NUMBER: PCT/US01/31126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9497
                                                                                                                                                                                                                                                                                                                                                                                                             9557 À
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAAGA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTCAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACCAGCCCATGG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCAGCTGCATGTGATGCCTTGGACCAGCACACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGAACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       trotiscas sies de la comencia del comencia del comencia de la comencia del la comencia de la comencia del la comencia de la co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĠŦĊĊĀĠĊĀŦĊŦĊĀĠĊĀĊŦŤŦĊĊŦŦŦĊĊĀĊĠŦĊŦĠŦĊĊĀĠĠĠŦĊĊĊŦĠĠĠĀĠĀĠĀĠĀĊĀŦĊŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          c de cresta de la comencia del comencia de la comencia del comencia de la comencia del la comencia de la comencia del la comencia de la comen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTCATTGACTCTCCCAAGATCACCTCGAGAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                             Acids and
                                                                                                       Peptide Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
```

Ś 밁

밁 Ś 뮍 S 뫄 δ В Ś Ъ δ 밁 Ş 밁 Ś 밁 Š 밁 δ В Ş

6830

960

6710

1020

6770

900

6650

```
; PRIOR FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: 60/238,848
; PRIOR FILING DATE: 2000-10-06
; NUMBER OF SEQ ID NOS: 96
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 44
; SEQ ID NO 44
; LENGTH: 11443
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; OTHER INFORMATION: Synthetic US-10-149-736-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6171
                                                                                                                                                                                                                                                                                                                                                                                               6231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5811
                 6531
                                                                                                                                                                   6411
                                                                                                                                                                                                                                           6351
                                                                                                                                                                                                                                                                                                                      6291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                   781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAAGGAAAGGCTCCTAG 120
                                 TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840
                                                                                                              AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                         AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                              AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                  AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                        TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                 ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAAGCTGAAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11443;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                   6470
                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5930
                 6590
                                                                                          6530
                                                                                                                              780
                                                                                                                                                                                                                                              6410
                                                                                                                                                                                                                                                                                                                      6350
                                                                                                                                                                                                                                                                                                                                                                                                 6290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                      GENERAL INFORMATION:

APPLICANT: Chamberlain, Jeffrey S.

APPLICANT: Chamberlain, Jeffrey S.

APPLICANT: Chamberlain, Jeffrey S.

APPLICANT: Harper, Scott Q.

TITLE OF INVENTION: Mini-Dystrophin Nucleic Acids and Peptide Sequences

FILE REFERENCE: UM-06968

CURRENT APPLICATION NUMBER: US/10/149,736

CURRENT APPLICATION NUMBER: DCT/US01/31126

PRIOR APPLICATION NUMBER: FOT/US01/31126

PRIOR APPLICATION NUMBER: 60/238,848

PRIOR APPLICATION NUMBER: 60/238,848

PRIOR APPLICATION NUMBER: 60/238,848

PRIOR FILING DATE: 2000-10-06

NUMBER OF SEQ ID NOS: 96

SOFTWARE: Patentin version 3.1

SEQ ID NO 47
                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
US-10-149-736-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
; OTHER INFORMATION: US-10-149-736-47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                             Sequence 47, Application US/10149736 Publication No. US20030216332A1
                               LENGTH: 12057
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ⋗
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCCAAACAAAGTGCCCTACTATATCCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTTACCACTTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1501
```

1500

1320

7010

7070

1260 6950 1200 6890 1140

밁

ঠ 밁 S

ঠ 8 S

밁 δ 밁 ঠ 밁 ঠ В ঠ В δ 밁 5 밁

S 밁 ş

S 밁 중 유

```
Query Match 99.9
Best Local Similarity 99.9
Matches 1500; Conservative
                                                                                                 9165
                                                                                                                                                                 9105
                                                                                                                                                                                                                             9045
                                                                                                                                                                                                                                                                                           8985
                                                                                                                                                                                                                                                                                                                                                         8925
                                                                                                                                                                                                                                                                                                                                                                                                                       8865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8685
                                                                   961
                                                                                                                                 901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8625
                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8445
                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                          ĠĊĀTŤĊĀĠĊŦĊŤĊĀĊĊĠŦĀŦĀĀĊĊŦĊĀĠĊĀĊŤĊŦĠĠĀĀĠĀĊĊŤĠĀĀĊĀĊĀĠĀŦĠĠĀĀĠĊ
                                             GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCCAGATGGAAGC
                                                                                       CGCCTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                           CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                     TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                         TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                         TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCCTGGGCGATC
                                                                                                                                                                                                                   TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                    AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                               AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                              AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                  AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                             AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ateaattaagccegcacecacctattegagccactttccagcagttcagaagcagaacc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACCTTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.9%; Score 1499.4; 99.9%; Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 17; Length 12057;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                            9284
                                                          1020
                                                                                        9224
                                                                                                                        960
                                                                                                                                                     9164
                                                                                                                                                                                      900
                                                                                                                                                                                                                     9104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8744
                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                   9044
                                                                                                                                                                                                                                                                                                                                                 8984
                                                                                                                                                                                                                                                                                                                                                                                                             8924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                             660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                        Sequence 22, Application US/09782378A
Patent No. US20020102731A1
GENERAL INFORMATION:
APPLICANT: Hearing, Patrick
APPLICANT: Hearing, Patrick
APPLICANT: Sandalon, Ziv
APPLICANT: Sandalon, Ziv
APPLICANT: Gnatenko, Dmitri
TITLE OF INVENTION: Adenoviral Vectors
FILE REFERENCE: STONYB-04970
CURRENT APPLICATION NUMBER: US/09/782,378A
CURRENT APPLICATION NUMBER: 60/237,747
PRIOR PILING DATE: 2000-10-02
NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin version 3.0
SEQ ID NO 22
LENGTH: 13957
TYPE: DNA
ORGANISM: Homo sapiens
                                      밁
                                                                   Ş
      Ś
                                                                                                    밁
                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
US-09-782-378A-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                             Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                    8265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9765 A 9765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501 A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9285
                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                  ш
                                                                                          AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 60
AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                  CAGAAGCTGAAACAGCTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAAGGCTCCTAG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGTCAGCTGCATGTGATGCCTTGGACCAGCACCACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                            pred. No. 0;
0; Mismatches
                                                                                                                                                                                            DB 9;
                                                                                                                                                            1;
                                                                                                                                                             Indels
                                                                                                                                                                                            Length 13957;
                                                                                                                                                            0; Gaps
                               8384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9344
```

Ő 멍 δ В Ś 뫄 δ Ъ Ś В Ś Дb Ş 밁 Ś 밁 Ş 밁 Ş 망 5 뫄 Ś 밁 δ 밁 S 뮍 Ś 밁 δ 뮹

Db 8505 TGGAAGGTTCCC		5
Qy 241 TGGAAGGTTCCG	1201 (733) 637 (737) 637 (737) 747) 747) 747) 747) 747) 747) 747)	3 8
	1141 CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACCACTTGCTGGGACCATC 1200	3 5
Db 8385 AAGACTCCAAGG	1081 GTCCAGCATCTCAGCACTTTCCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT 1140	음 성
8325 121	1021 TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGTGCATGAAGCCCACAGGGACTTTG 1080	ል
8265 61	961 GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020 	음 성
Best Local Similarity Matches 1500; Conservat Qy 1 AGACTCATAGAT	901 CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 960	음 성
; OTHER INFORMATION: Gen US-09-880-107-2284 Ouery Match	841 TCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900 	유성
; LENGTH: 13957 ; TYPE: DNA ; ORGANISM: Homo sapiens ; PEATURE:	781 TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	유 성
; PRIOR FILING DATE: 2000 ; NUMBER OF SEQ ID NOS: 3 ; SOFTWARE: Patentin Ver: ; SEQ ID NO 2284	721 AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780 	음 성
CURRENT FILING DATE: 2 PRIOR APPLICATION NUMBE PRIOR FILING DATE: 2000 PRIOR APPLICATION NUMBE	661 AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC 720	음 성
292	601 AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660 	음 성
; GENERAL INFORMATION: ; APPLICANT: Horne, Darci ; APPLICANT: Vockley, Jo ; APPLICANT: Scherf, Uwe	541 TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600 	유 성
RESULT 12 US-09-880-107-2284 ; Sequence 2284, Applicati ; Patent No. US20020142991	481 ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540	음 성
	421 ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480	음 성
Db 9705 ACAATTTGGTCA Qy 1501 A 1501	361 AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG 420	음 衫
9645 1441	301 GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC	음 성
	241 TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300 	음 성
Db 9525 ATAGGACTGCCA	181 AAGTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCC 240	유 성
Db 9465 CCAAAATGACAG Qy 1261 ATAGGACTGCCA	8385 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGGACCTCCAAGGTGAAATTG	8

```
gic, Inc.
Gene Expression Profiles in Liver Cancer
121-5028-WO
7 NUMBER: US/09/880,107
12: 2001-06-14
12: 2001-06-14
12: US 60/211,379
12: US 60/237,054
12: US 60/237,054
                                                                                                                                                                                                                                                                                                                                                                                                                                         rci T.
Joseph G.
Jwe
                                                                             AACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                ATTACTGCAACAGTTCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                              enbank Accession No. US20020142981A1 M18533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tion US/09880107
31A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 9524
          CGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
GATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                        ; Score 1499.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                              DB 9;
                                                                                                                                                                                                          1;
                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                              Length 13957;
                                                                                                                                                                                                          0;
                                                                                                                                                                                                          Gaps
8564
                   300
                                        8504
                                                            240
                                                                                8444
                                                                                                                         8384
                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9584
                                                                                                                                                                   8324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                          0
```

S 밁 δ 밁 δ 뮰 Ś 멍 ş 밁 S g Ś 밁 Ş В Ş 밁 δ В S 밁 5 밁 Ş 밁 S д δ 밁 δ 뮹 S 밁 S

481 ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540

```
CURRENT APPLICATION NUMBER: US/10/149,736
CURRENT FILING DATE: 2002-06-17
PRIOR APPLICATION NUMBER: PCT/US01/31126
PRIOR FILING DATE: 2001-10-04
PRIOR PILING DATE: 2001-10-06
PRIOR FILING DATE: 2000-10-06
PRIOR FILING DATE: 2000-10-06
NUMBER OF SEQ ID NOS: 96
SOFTWARE: Patentin version 3.1
SEQ ID NO 1
LENGTH: 13957
TYPE: DNA
ORGANISM: Homo sapiens
       밁
                              Ś
                                                                밁
                                                                                       Ś
                                                                                                                         밁
                                                                                                                                                   Ś
                                                                                                                                                                             뮰
                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                         뮹
                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-149-736-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 13
US-10-149-736-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 99.9%;
Best Local Similarity 99.9%;
Matches 1500; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/10149736
Publication No. US20030216332A1
GENERAL INFORMATION:
APPLICANT: Chamberlain, Jeffrey S.
APPLICANT: Harper, Scott Q.
TITLE OF INVENTION: Mini-Dystrophin Nucleic Acids and Peptide Sequences
FILE REFERENCE: UM-06968
       8685
                                                              8625
                                                                                                                         8565
                                                                                                                                                                                8505
                                                                                                                                                                                                                                         8445
                                                                                                                                                                                                                                                                                                 8385
                                                                                                                                                                                                                                                                                                                                                         8325
                                                                                                                                                                                                                                                                                                                                                                                                                 8265
                                    421
                                                                                          361
                                                                                                                                                    301
                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                         121 AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9765 À 9765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501 A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1441 ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                       AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                        AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                              ggagrgaactrocggaaaaaagrororoaacarraggroccarrreggaagcoagroctgaco
                                                                                                                                   GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                        TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                        TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT 300
                                                                                                                                                                                                                              AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 8504
                                                                                                                                                                                                                                                AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 240
                                                                                                                                                                                                                                                                                                                                                                CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                        AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                               CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                       AGACTCATAGATTACTGCAACAGTTCCCCCTGGAACCTTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Score 1499.4; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 17; Length 13957;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
8744
                           480
                                                        8684
                                                                                                               8624
                                                                                                                                             360
                                                                                                                                                                        8564
                                                                                  420
                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                        8444
                                                                                                                                                                                                                                                                                                                                               8384
                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                        8324
                                                                                                                                                                                                                                                                                                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
9525
                                                                                                                                                                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8745
                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9045
                                                                                                                                                                                                                                                              9585
                     9765
                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                   ATAGGACTGCCATGAAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTTGAGCC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGCCAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGAGAAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGAGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                          A 1501
                                                                                                                            ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT
                                                                                                                                                                                                       ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 1440
                                                                                                                                                                                                                                                                                   TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG 1380
                                                                                                                                                                                                                                                                                                                                              ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAAATGACAGAGCTCTACCAGTCTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCTCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGAGCCCAGAGAGACCTGCCTGAGGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA
                       9765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8864
                                                                                                       9764
                                                                                                                                          1500
                                                                                                                                                                                9704
                                                                                                                                                                                                                                                                                                                                              9584
                                                                                                                                                                                                                                                                                                                                                                                                                            9524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8804
                                                                                                                                                                                                                                                                9644
                                                                                                                                                                                                                                                                                                                                                                                                                                      & 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
밁
                                 S
                                                                               밁
                                                                                                                 δ
                                                                                                                                                           밁
                                                                                                                                                                                                 5
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-172-118-434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-172-118-434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linsley, Pete
APPLICANT: Mao, Mao
APPLICANT: Roberts, Chri
APPLICANT: Van 't Veer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 434, Application US/10172118 Publication No. US20030224374A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 99.9%; Score 1499.4; Best Local Similarity 99.9%; Pred. No. 0; Matches 1500; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NO 434
LENGTH: 14069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Mao, Mao
APPLICANT: Van't Veer, Laura
APPLICANT: Van't Veer, Laura
APPLICANT: Van de Vijver, Marc
APPLICANT: Bernarda, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFERENCE: 9301-175-999
FILE REFERENCE: 9301-175-999
CURRENT APPLICATION NUMBER: US/10/172,118
CURRENT FILING DATE: 2002-06-14
PRIOR APPLICATION NUMBER: 60/380,770
PRIOR FILING DATE: 2002-05-14
NUMBER OF SEQ ID NOS: 2699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM 000109
DATABASE ENTRY DATE: 2001-06-18
                                                                                                                                                                                                                                                                                                                                                                                                           8617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8377
                                                                                                                                                               8797
                                                                                                                                                                                                                                             8737
                                                                                                                                                                                                                                                                                                                             8677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8557
                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AGACTCATAGATTACTGCAACAGTTCCCCCTGGACCTTGGAAAAGTTTCTTGCCTGGCTTA 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG 120
                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAACTCATAGATTACTGCAACAGTTCCCCCCTGGACCTGGAAAAGTTTCTTGCCTGGCTTA
                                                                                                         ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC 540
                                                                                                                                                                                                                                                                                                                           GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                         TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC 600
                                                                                                                                                               ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                  ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG 480
                                                                                                                                                                                                                                                                    AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                   TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCC 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGACTCCAAGGGAGTAAAAGAGCTGAAGAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                  ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                               AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Linsley, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 14069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
```

δ

밁

ঠ 밁 8 밁 δ В δ 밁 S 밁

밁

ঠ 밁 á 뫄 δ 밁 δ 밁 Ş 밁 S 밁 Ś 밁 Ş

밁 5 문 S 밁

S

RESULT

14

AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAA 660

8916

8856

420

8736 360 8676

8796

300

8616

8496

8436

8556

```
RESULT 15
US-10-342-887-434

Sequence 434, Application US/10342887

Publication No. US20040058340A1

GENERAL INFORMATION:
APPLICANT: Dai, Hongyue
APPLICANT: Linsley, Peter S.

APPLICANT: Mao, Mao
                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                       9817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9577
                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                          9637
                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661
                                                                                                                                                                                Þ
                                                                                                                                                                                                          ⊳
                                                                                                                                                                                                                                  ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA
                                                                                                                                                                                                                                                                                                                                                TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                               TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG
                                                                                                                                                                                                                                                                                                                                                                                                       ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCCGTGGGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGAGAAAAATAGATGAGACCCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                              1500
                                                                                                                                                                                                                                                                                          9816
                                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                                                          1380
                                                                                                                                                                                                                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9456
                                                                                                                                                                                                                                     9876
                                                                                                                                                                                                                                                                                                                                                 9756
                                                                                                                                                                                                                                                                                                                                                                                                       9696
                                                                                                                                                                                                                                                                                                                                                                                                                                                               9636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9096
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                  밁
                                                         Ś
                                                                                                               Š
                                                                                       밁
                                                                                                                                            밁
                                                                                                                                                                  Ş
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; LENGTH: 14069
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-342-887-434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Roberts, Christopher J.
APPLICANT: Van 't Veer, Laura Johanna
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Bernards, Rene
TITLE OF INVENTION: Diagnosis and Prognosis of
FILE REFERENCE: 9301-188-999
CURRENT APPLICATION NUMBER: US/10/342,887
CURRENT FILING DATE: 2003-01-15
PRIOR APPLICATION NUMBER: 60/28,918
PRIOR APPLICATION NUMBER: 60/28,710
PRIOR PILING DATE: 2001-06-18
PRIOR APPLICATION NUMBER: 10/172,118
PRIOR FILING DATE: 2002-05-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
Matches 1500; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 434
                                                                                        8977
                                                                                                                                              8917
                                                                                                                                                                                                      8857
                                                                                                                                                                                                                                                             8797
                                                                                                                                                                                                                                                                                                                                                                          8677
                                                                                                                                                                                                                                                                                                                                                                                                                                 8617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8377
                                                                                                                   601
                                                                                                                                                                          541
                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGAATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                               AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                             AGCAGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGC
                                                                                     AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAA
                                                                                                      AGGAGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCCGCCTTCTACGAA
                                                                                                                                              TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACC
                                                                                                                                                                TTGAGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAAGGACTAGAGAAACTCTACC
                                                                                                                                                                                                     ATGTACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                     ATGTACATAGGGCCTTCAAGAGGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTC
                                                                                                                                                                                                                                                          ATGAATTAAGCCCGCAGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACG
                                                                                                                                                                                                                                                                                                                 AGTGGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATG
                                                                                                                                                                                                                                                                                                                                                                                         GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGAAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGACTCCAAGGGAGTAAAAGAGCTGATGAAACAATGGCAAGACCTCCAAGGTGAAATTG
                                                                                                                                                                                                                                                                                                                                                                         GGAGTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAAGCTGAAACAACTGCCAATGTCCTACAGGATGCTACCCGTAAGGAAAGGCTCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 1499.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       о
f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Breast Cancer Patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                     9036
                                                           720
                                                                                                                  660
                                                                                                                                              8976
                                                                                                                                                                                                                                                          8856
                                9096
                                                                                                                                                                       600
                                                                                                                                                                                                     8916
                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                  8796
                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                         8736
                                                                                                                                                                                                                                                                                                                                                                                                                                8676
                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8436
                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
```

δ 당 5 뮍 Ś В Ś

S 뭐

В Ş 밁 Ş 뭐 δ 밁 Ş 문 δ 밁 S 뫄 S 밁 Ş Ъ Ş В S

Search c Job time	οь	Ş	뮹	Ş	Db	γQ	DЬ	γQ	В	ş	ρb	Ş	Вb	Ş	מם	Ş	망	ş	В	Ą	Db	8	B	Ş	Db	Ş	뭥	QY.
h completed: ime : 905.381	9877	1501	9817	1441	9757	1381	9697	1321	9637	1261	9577	1201	9517	1141	9457	1081	9397	1021	9337	961	9277	901	9217	841	9157	781	9097	721
ted: March 2, 2005, 20:00:27 5.381 secs	A 9877	A 1501	ACAATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTT 9876	ACAATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTT 1500	ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACA 9816	ATATCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCAACA 1440	TGTCAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGG 9756	TGTCAGCTGCATGTGATGCCTTGGACCAGCACAAACCTCAAGCAAAATGACCAGCCCATGG 1380	ATAGGACTGCCATGAAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCC 9696	ATAGGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCC 1320	CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 9636	CCAAAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTT 1260	CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 9576	CGCCAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATC 1200	GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAAGAGAGCCATCT 9516	GTCCAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGA	TTCTGCAGGTGGCCGTCGAGGACTCAGGCAGCTGCATGAAGCCCACAGGGACTTTG 9456	TTCTGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTG 1080	GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGC 9396	GCATTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCCTGAACACCAGATGGAAGC 1020	CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGG 9336	CGCCTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTTACCACTTTGG 960	TCCTCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 9276	TCCTCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTG 900	TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 9216	TGGACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATC 840	AGAGAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 9156	AGAGAAAAATAGATGAGACCCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGC 780

•					
			`		

٠,

```
Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 ctcacacagatgtttatcac.....tctatccaaattccaagaca 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-845-416-6_COPY_2000_3500
1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            March 2, 2005, 06:35:12; Search time 897.381 Seconds (without alignments) 9911.195 Million cell updates/sec
                                                                                                                                                                     10:
11:
12:
13:
14:
15:
16:
17:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5394803 seqs, 2962729879 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Published Applications NA:*

1: /cgn2_6/ptodata/2/pubpna/PCT NEW PUB.seq:*

2: /cgn2_6/ptodata/2/pubpna/PCT NEW PUB.seq:*

3: /cgn2_6/ptodata/2/pubpna/US06_NEW PUB.seq:*

4: /cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*

5: /cgn2_6/ptodata/2/pubpna/US07_NEW PUB.seq:*

5: /cgn2_6/ptodata/2/pubpna/US07_NEW PUB.seq:*

6: /cgn2_6/ptodata/2/pubpna/US07_NEW PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
/ Cgn2_6/ptodata/2/pubpna/US09B_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cgn2
                                                                                                                                                                                                                                                                                                                                                                                                                         _6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10789606
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

ള	
≘	
£	
€.	
昦	
ᄇ	

```
Result Query Query Description

No. Score Match Length DB ID

Description

1 1501 100.0 2169 10 US-09-845-416-4

2 1501 100.0 3531 10 US-09-845-416-9

3 1501 100.0 3531 10 US-09-845-416-9

4 1501 100.0 3858 10 US-09-845-416-6

5 1501 100.0 3999 10 US-09-845-416-6

5 1501 100.0 4182 10 US-09-845-416-2

6 1501 100.0 4498 10 US-09-845-416-30 Sequence 2, Appli

6 1501 100.0 4498 10 US-09-845-416-30 Sequence 30, Appl

8 1501 100.0 4825 10 US-09-845-416-29 Sequence 29, Appl

9 1501 100.0 4968 10 US-09-845-416-38 Sequence 28, Appl

10 1501 100.0 4966 10 US-09-845-416-38 Sequence 37, Appl

11 1501 100.0 5060 10 US-09-845-416-34 Sequence 34, Appl
```

5	44	3	42	41	ô	39	8	37	36	5	34	33	32	31	ö	29	28	27	26	5	24	ະ	22	21	8	9	18	17	6	15	4	13	2
170	216	324	387	404	546.8	594.8	603.6	603.6	621.2	621.2	4	948.6	949.6	949.6	1301	1335	1339.8	1339.8	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501
11.3		21.6	٠				40.2		41.4		63.2				86.7	88.9	89.3	89.3	100.0	100.0	100.0				100.0							100.0	
348	216	324	387	887	5106	16531	10302	10302	11096	10705	1434	5417	4414	3446	13815	1821	4476	3510	14082	14082	14082	14069	14069	13957	13957	13957	12057	11443	11058	8689	46	5339	14
17	17	17	17	17	17	15	17	9	17	17	10	17	10	10	17	10	10	5	17	17	17	17	17	17	9	9	17	17	10	17	17	17	10
US-10-149-736-31	US-10-149-736-34	US-10-149-736-33	-10-149-736-	-10-149-736-	US-10-220-120-157	US-10-101-510-667	ω	9-782-378A-23	US-10-149-736-4	\mathbf{r}	-09-845-416-	US-10-149-736-39	US-09-845-416-32	US-09-845-416-14	-73	-845-416-	US-09-845-416-31	50-	US-10-342-887-981	-10-172-118-	US-10-341-434-108	US-10-342-887-434	US-10-172-118-434		US-09-880-107-2284 S	22	US-10-149-736-47	US-10-149-736-44	US-09-845-416-1	-736-42	-10-149-736-41	-10-149-736-40 6 8 6 7///	-09-845-416-27, 61 0777
31,	34,	Sequence 33, Appl		35, 1	157,	66	е 3, AI	23,	4,	155	15	39,	32,	14	٧,	13,	31,	12,	981	981	108,	434,	434	Sequence 1, Appli	2284	equence 22, i	47	44	۲,	42,	41	Sequence 40, Appl	e 27,

ALIGNMENTS

```
S
                                       밁
                                                                             Ś
                                                                                                                             밁
                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                              US-09-845-416-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/09845416; Publication No. US20030171312A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-845-416-4
                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
SEQ ID NO 4
                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1501; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DAMA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR PILICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
                                                                                                                                                                                                                                                                                                                  LENGTH: 2169
TYPE: DNA
ORGANISM: Homo sapiens
121 GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                             183 CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCCTGG 242
                                                                      61 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                      PatentIn Ver. 2.1
                                                                                                                                                   CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAAATCCTGAGATCCCTGG 60
                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                100.0%; Score 1501;
100.0%; Pred. No. 0;
                                                                                                                                                                                                               <u>,,</u>
                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                      DB 10;
                                                                                                                                                                                                               <u>,,</u>
                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                    Length 2169;
                                                                                                                                                                                                                 0
                                                                                                                                                                                                                 Gaps
```

유왕

```
1201
                                                                          1141
                                                                                                     1263
                                                                                                                               1081
                                                                                                                                                          1203
                                                                                                                                                                                    1021
                                                                                                                                                                                                               1143
                                                                                                                                                                                                                                                                    1083
                                                                                                                                                                                                                                                                                                                       1023
                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                 841
                                                                                                                                                                                                                                                                                                                                                                              963
                                                                                                                                                                                                                                                                                                                                                                                                      781
                                                                                                                                                                                                                                                                                                                                                                                                                                 903
                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 303
TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCCCTGGAGCAAGAGCACAACA
                                         CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                         CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                              GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                              GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                   AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                  AAATGACAGAGCTCTACCAGTCTTTAGCTGAACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                        CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                          CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                           CAGCATCTCAGCACTTTCTTTCCACGTCTGCCAGGGTCCCTGGGAAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                     TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 1022
                                                                                                                                                                                                                                                                                                                                                                                        TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTGAAAGAĞAACGTĞAĞCCACĞTCAATĞACCTTĞCTCĞCCAĞCTTACCACTTTĞĞĞCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCCCAGAGAGCTGCCTCGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1260
                                                                                              1322
                                                                                                                         1140
                                                                                                                                                    1262
                                                                                                                                                                              1080
                                                                                                                                                                                                         1202
                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                   1082
                                                                                                                                                                                                                                                                                                                                                                                                                             962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           362
                         뮍
                                                  δ
                                                                             밁
                                                                                                      Ś
                                                                                                                                   밁
                                                                                                                                                        5
                                                                                                                                                                                         밁
                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                       Matches 1501;
                                                                                1772
                                                                                                                                    1712
                                                                                                                                                                                         1652
                                                                                                                                                                                                                                              1592
                                                                                                                                                                                                                                                                                                     1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1563
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1503
                                                    301
                                                                                                                                                              181
                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1383
                                                                                                                                                                                                                                                                        61
```

Ś Дb δ 片 Ś 멼 δ 밁 Ş 밁 Ś 밁 Ś 밁 8 밁 Ş 밁 Ş 밁 Ş Вb Ś 밁 δ В Ş

```
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A I
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION SERVICE SE
            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
US-09-845-416-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 10, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1683 A 1683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                            AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 1831
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGGCTACAGCTGAAAGATGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 1651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                         TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360
                                                                                                                                                                                                                                                                                           AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                          GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACGGGACGAACAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1501; illarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A DYSTROPHY MINIGENE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
    420
                                                                                 1891
                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                               1771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1502
```

В

```
1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2372
                      1441
                                                                                                                                                       1321
                                                                                                                                                                                        2792
                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                        2732
                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                          2672
                                                                                                                                                                                                                                                                                                                                                                                         2612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                          CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                            GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATGACAGAGCTCTACCAGTCTTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCCATCCCA 1020
                                                                                                                                                                                                                                                                                                                                                                                           GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CANACANAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGCATCTCAGCACTTTCCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGACCCCAGAATGTCACTCGGCTTCTACGAAAGC 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                                                      ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                       ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320
                                                                                                                                                                                                                                                                           TCCTGCAGATTAATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                       CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                          TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                       2971
                                                                                                                                                                                        2851
                                                                                                                                                                                                                                                        2791
                                                                                                                                                                                                                                                                                                                        2731
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1951
                      1500
                                                                                                                       2911
                                                                                                                                                                                                                                                                                                                                                                                           2671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2131
                             밁
                                                                  Ś
                                                                                                      밁
                                                                                                                             δ
                                                                                                                                                                     밁
                                                                                                                                                                                                  S
                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        유영
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 3
```

Ś

8 8 8 8 8

8 8 8 8 8 8 8 8

밁

유정

중 유

```
; SEQ ID NO 9
; LENGTH: 3858
; TYPE: DNA
; ORGANISM: Homo £
US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GENERAL INFORMATION: APPLICANT: XIAO, XI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 9, Application US/09845416 Publication No. US20030171312A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 100.0%; Score 1501;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1501; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE TITLE OF INVENTION: THEREOF FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777 PRIOR FILING DATE: 2000-04-28 NUMBER OF SEQ ID NOS: 36 SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                     2279
                                                                                                                                                                                                                                                                                                          2219
                                                                                                                                                                                                                                                                                                                                                                                                 2159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1859
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3032 A 3032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501 A_1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2972 GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 3031
                                                                                                                                                                         481
                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                    GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCCTGAGATCCCTGG 60
                                                                                                                                                       AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                            AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                     AGACTGTACGAATATTTCTGACAGAGCCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTAAGCCGGCAGGCACTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                       AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                            AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                 TACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                        TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                       600
                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                2398
                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                       2338
                                                                                                                                                                                                                                                                                                            2278
                                                                                                                                                                                                                                                                                                                                                                                                 2218
                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
```

```
; Sequence 6, Application US/09845416
Publication No. US20030171312A1
; GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENC.
; TITLE OF INVENTION: THEREOF
; FILE REFERENCE: DE1142
       ^-. -. -. -. -. -. -.
                                                                  RESULT 4
US-09-845-416-6
                                                                                                                   8
                                                                                                                                    뫄
                                                                                                                                                   Ś
                                                                                                                                                                    음 성
                                                                                                                                                                                                          B
                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                              DЪ
                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            рь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                      3359
                                                                                                                      1501
                                                                                                                                        3299
                                                                                                                                                        1441
                                                                                                                                                                          3239
                                                                                                                                                                                         1381
                                                                                                                                                                                                           3179
                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                              3119
                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                               3059
                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                2999
                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                   2939
                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                    2879
                                                                                                                                                                                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                        2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2519
                                                                                                                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                     ₽.
                                                                                                                       Þ
                                                                                                                                            GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                            ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                 GATTTTGTGACCAGCGCAGGCTGGGCCTTCCTTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                  ĠŦĀĀĀĠĊĀĊĀŦŤŦĠĠĀĀĠĀĊĀĀĠŦĀĊĀĠĀŦĀĊĊŦŦŦŦĊĀĀĠĊĀĀĠŦĠĠĊĀĀĠŦŦĊĀĀĊĀĠ
                                                                                                                                                                                                     ATACGGGĂCGĂĂCĂĠGĠĀĠĠĀTĊĊĠŦĠŦĊĊŦĠŦĊŦŦŦŦĀĀĀĀĊŦĠĠĊĀŦĊĀŦŦŦĊĊĊŦĠŦ
                                                                                                                                                                                                                                      ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                         TCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                          CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGGCCCATGGATA
                                                                                                                                                                                                                                                                                                                   CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                        GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                               AAATGĀĆĀĠĀĠĆŦĊŦĀĆĊĀĠŦĊŦŦŦĀĠĊŦĠĀĊĊŦĠĀĀŦĀĀŦĠŦĊĀĠĀŦŦĊŦĊĀĠĊŦŦĀŦĀ
                                                                                                                                                                                                                                                                                                                                                                                          AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                           CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCATCTCAGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                      3359
                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctctgaaagaaacetgaeceacetcaatgaecttgeteeceagettaecaetttgeeca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                      ENCODING
                      Þ
                     DYSTROPHY
                    MINIGENE
                    AND
                   USE
                                                                                                                                  3358
                                                                                                                                                                                   1440
                                                                                                                                                                                                    3238
                                                                                                                                                  1500
                                                                                                                                                                   3298
                                                                                                                                                                                                                      1380
                                                                                                                                                                                                                                       3178
                                                                                                                                                                                                                                                        1320
                                                                                                                                                                                                                                                                         3118
                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                           3058
                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                  . 1020
                                                                                                                                                                                                                                                                                                                                                                               2938
                                                                                                                                                                                                                                                                                                                                                                                                                2878
                                                                                                                                                                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2518
S
               밁
                              Ś
                                                  Вb
                                                               Ş
                                                                                   뮍
                                                                                                  Ş
                                                                                                                      밁
                                                                                                                                    S
                                                                                                                                                       В
                                                                                                                                                                     δ
                                                                                                                                                                                         В
                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                            g.
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                            Вb
                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
```

```
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 6
LENGTH: 3999
TYPE: DNA
ORGANISM: Homo sapiens
US-09-845-416-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 1501
                                        2780
                                                                                                        2720
                                                                                                                                                                         2660
                                                                                                                                                                                                                                        2600
                                                                                                                                                                                                                                                                                                        2540
                                                                                                                                                                                                                                                                                                                                                                       2480
                                                                                                                                                                                                                                                                                                                                                                                                                                        2420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2300
                                                                         781
                                                                                                                                      721
                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2240
                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _
TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                  TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                   CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTTGGCCA
                                                                                                                                                                                                                                                 ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                              TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                     TCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC 720
                                                                                                                                                                                                                               ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                GAAAAATAGATGAGACCCTTGAAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                 GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                             AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                  AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                             AGCCCAGAGAGCTGCCTCAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACATAGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTAAĠĊĊĠĠĊĀĠĠĊĀĊĊŤĀŤŤĠĠĀĠĠĊĠĀĊŤŤŤĊĊĀĠĊĀĠŦŤĊĀĠĀĀĠĠĀĠĀĀĊĠĀŤĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACACAGATGTTTATCACAACCTGGATGAAAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; ilarity 100.0%; Conservative 0
                               CACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                2779
                                 2839
                                                                840
                                                                                                                               780
                                                                                                                                                              2719
                                                                                                                                                                                                                                 2659
                                                                                                                                                                                                                                                               660
                                                                                                                                                                                                                                                                                                2599
                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                               2539
                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                             2479
                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
```

Query Match 100.0%; Score 1501; DB 10; Length 4182; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	LENGTH: TYPE: DN ORGANISM S-09-845-41		FILE CURRI	; GENERAL INFORMATION: ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: THEREOF ; TITLE OF INVENTION: THEREOF	RESULT 5 US-09-845-416-2 ISequence 2, Application US/09845416	3500	Cy 1501 A 1501	1441 GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC	TSEL GIVAAGCACATITGSANGACAAGTACAGATACTITITAAGCAAGIGSCAAGITCAACAG 1440	3320 ATACGGACGAACAGGGAGGATCCGTGTCTTTTAAAACTGGCAACATCCCTGT	3260 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTCTCTTTTAACTGGCTATCATTTTATG	TTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGCAACTGTTTATG	Db 3140 CAGCTGCATGTATTAATTGTTTTGACCAGCACAACCTCAAGCAAAATGACCAGCACAGAAACA 1260 1701 TCCTTCCAGATTAATTAATTGTTTTTTTTTTTTTTTTTT	1111 GARCTGCATGAARCTCCGAAGACGACAACGACAACGACAAATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCGATGAACCCCTGTTGCATGCA	3020 AAATGACAGAGCTCTACCAGAGCCTGACAGACCCTGAATAATGTCAGATCTCTCAGCTTATA		2900 CAGCATCTCAGCACTATCTACCACGACACTCTAAACCAACTTCGCAGCCATCTCA	Db 2840 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC 2899
δ B &	\$ B &	Qy Db	gb Qy	d Q	Qγ	g Qy	Db	Q	B &	Qy Db	B 64	Qy Qy	δ δ	Qy	B &	g Qy	δ dd	8 8
1021 ANTIGOROUS CONTROL CONTRO		901 CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC 960	841 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC 900	781 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840	721 CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780	661 TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAGAAATTGCGC 720	ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC		541 GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG 600 	481 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540	421 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC 480	361 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420 	301 TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360	241 AATTAAGCCGGCAGGCACCTATTGGAGGGGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300 	181 GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG 240	121 GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180	61 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120 	1 CLACACAMA ISTITA CACAMCCIGAN ISAMANCAS CAMANANTA COLONA I COCASA COLONA I

61 AAGGTTCCGATGAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120	ORGANISM: -09-845-416- Query Match Best Local (Matches 150) 1 2289	; Sequence 30, Application US/09845416 ; Publication No. US20030171312A1 ; GENERAL INFORMATION: ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE ; TITLE OF INVENTION: THEREOF ; FILE REFERENCE: DE1142 ; CURRENT APPLICATION NUMBER: US/09/845,416 ; CURRENT APPLICATION NUMBER: 00/200,777 ; PRIOR APPLICATION UMBER: 60/200,777 ; PRIOR PILING DATE: 2000-04-28 ; NUMBER OF SEQ ID NOS: 36 ; SOFTWARE: Patentin Ver. 2.1 ; SEQ ID NO 30 ; LENGTH: 4498	Db 3263 GGACTGCARGAACTCCGAAGACTGCAGAAGACTGCAGAAATGACCAGACTGTTAGACTGTTGATCCTTTGAGCCTTTTGAGCCTTTTTAGACCAGCCATGAGTA 1200 1141 CAGCTGCARTGTAATGCCTTTGACCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200 1261 TCCTGCAGATTATTAATTGTTTGACCACCACTAGTATAGACGAGAACCACAACA 1260 127 TCCTGCAGATTATTAATTGTTTGACCACCACTAGTATAGACGAGAACAACA 1260 128 TCCTGCAGATTATTAATTGTTTGACCACCATTATTATGACCGCCTGGAGCAAGACAACA 1260 129 T261 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTTGAACTGGCTGCAAGACAACA 3442 120 TAGAGTACAACTTATTATTAATTGTTTGACCACCATTATTAAACTTGGCTGCTGAATGTTTATGACCACCATCATTTATGACCGCTTGAAGCACAACA 3442 120 TAGAGTACAACTCCCTCTCTGCGTGGAATATGTGTTCTGAACTGGCTGCAAGACAACA 3442 121 ATTTGGTCAACGTCCCTCTCTGCGTGGAATATGTGTTCTGAACTGGCTGCTGAATGTTTATGACCACATTTATGACCACTTCCTTTTTAAAACTTGGCTAACTTCCTTTTTAAAACTTGGCAACTTCCTTTTTAAAACTTGGCAACATTTCCCTTTTTAAAACTTGGCAACATTTCCCTTTTTAAAACTTGGCAACATTTCCCTTTTTAAAACTTGGCAACTATTTCCCTTTTTAAAACTTGGCAACTATTTCCCTTTTTAAAACTTGGCAACTTCAACAG 1440 120 T321 ATAAGCACAATTTGGAAGAACAAGTACAGATACCTTTTTAAAACTTGGCAAGTTCAACAG 1440 121 TAGAGGACAACATTTGGAAGAACAAGTACAGATACCTTTTTCAAGCAAG
TITE CAGCIGATITICS TIGGAT ACCAGA ANATGACCAGACA ACAGACA TAGATA 1200	3249 1021 3309 1081 3369		Qy 241 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAAGCAGAACGATG 2529 AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAAGCAGAACGATG Qy 301 TACATAGGGCCTTCAAGAGGGAATTGAAAACTTAAAGAACCTGTAATCATGAGAACGATG 2649 302 TACATAGGGCCTTCAAGAGGGAATTGAAAACTTAAAGAACCTGTAATCATGAGATACTCTTG Qy 361 AGACTGTACGAATATTTCTGACAGAGCAGACTTTGGAAGGACTTAATCATGAGTACTCTTG 2648 Qy 361 AGACTGTACGAATATTTCTGACAGAGCAGCTTTGGAAGGACTAGAGAACTCTACCAGG Qy 421 AGCCCAGAGAGTTCTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAACTCTACCAGG Qy 421 AGCCCAGAGAGCTTGCCTCCTGAGGAAGAGCCCCAGAATGTCACTCGGCTTCTACCAGG Qy 481 AGGCTGAGGAGGTCAATACTGAGTGGGAAAATTGAACCTCGACTCCGCTTGCACAGG Qy 481 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTCCACTCCGCTGACTGGCAGA 2769 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA Qy 541 GAAAAATAGATGAGAGACCCTTGAAAGAACTTCAAGAGGACCACGCATGGACTGGCAGA Qy 601 ACCTCAAGCTGCCAAGACCCTTGAAAAATTGAACTTCAAGAGGCCACGGATGACTGC Qy 601 ACCTCAAGCTGCCCAAGCTGAGGTGATCCAGGAAACTTCAAGAGGCCACGGATGACTCCC AGGCTGAAGATGATGAGTGAAACTTCAAGGGATCCTGGAGGAGAAATTGCC ACCTCAAGCTGCCCAAGCTGAGGTGATCAAGAGGATCCTCGAGGAGAAATTGCC ACCTCAAGCTGCCCAAGCTGAGGTGATCAAGGGATCCTCGAGGAGAAATTGCC ACCTCAAGCTGCCCAAGCTGAGGTATCAAGGGATCCTTGAAGGAGACAAATTGCC ACCTCAAGCTGCCCAAGCTTCCAAGAAAATTCAAGGGATCCTCGAGGAGAAATTGCC ACCTCAAGCTGCCCAAGCTCAAGATCAACTCAAGGGAATCTCCAAGGAGAAATTGCC ACCTCAAGCTGCCCAAGCTCAAGATCAACTCAAGGGATCCTCGAAGGAAAATTGCC ACCTCAAGCTGCCCAAGCTCAAGATCAACTCAAGGGATCCTTCGAAGGAAAATTGCC ACCTCAAGCTGCCCAAGCTCAAGATCAACTCAAGGGATCCTTCGAAGGAAAATTGCC ACCTCAAGCTGCCAAGATCACCTCGAAAAATCAACCTCAAGGAAATTCCAAGGAAAATTGCC ACCTCAAGAAAAAAAAAA

481 AGECTICAGAGGETATATATAGAGGAGGAGATATAGAGGAGGAGGAGGAGGAG

```
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
US-09-845-416-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 35, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 35
LENGTH: 4848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: XIAO, XIAO

APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE

TITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142

CURRENT FAPPLICATION NUMBER: US/09/845,416

CURRENT FILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

NUMBER OF SEQ ID NOS: 36
                                                                                                     3239
                                                                                                                                                                       3179
                                                                                                                                                                                                                                          3119
                                                                                                                                                                                                                                                                                                           3059
                                                                                                                                                                                                                                                                                                                                                                                2999
                                                                                                                                                                                                                                                                                                                                                                                                                                                2939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2759
                                                                    661
                                                                                                                                       601
                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2699
                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                         TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC 3358
                                                                                            ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                  GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                               ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                            GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                   AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                               AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                    AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                        AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                   AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                            AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                      TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACATAGGGCCTTCAAGAGGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGTGCTACAGCTGAAAGATGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĠŦĠĀĀĊŦŤĊĠĠĀĀĀĀĠŢĊŦĊŦĊĀĀĊĀŤŦĀĠĠŦĊĊĊĀŦŦŦĠĠĀĀĠĊĊĀĠŦŦĊŦĠĀĊĊĀĠŦ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ĊŢĊĀĊĀĊĀĠĀŢĠŢŢŢĀŢĊĀĊĀĀĊĊŢĠĠĀŢĠĀĀĀĀĀČĀĠĊĊĀĀĀĀĀĀŤĊĊŢĠĀĠĀŢĊĊĊŢĠĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4848;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                             3298
                                                                                                                                                                                                                                                                 540
                                                                                                                                                              3238
                                                                                                                                                                                                                                 3178
                                                                                                                                                                                                                                                                                                    3118
                                                                                                                                                                                                                                                                                                                                                                     3058
                                                                                                                                                                                                                                                                                                                                                                                                                                       2998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                           720
                                                                                                                            660
                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
Sequence 28, Application US/09845416
Publication No. US20030171312A1
GENURAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT APPLICATION NUMBER: 08/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIAN Ver. 2.11
SEQ ID NO 28
                                                                                                                                                                                                                                        RESULT 9
US-09-845-416-28
                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                4139
                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                   4079
                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                      4019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                               A 4139
                                                                                                                                                                                                                                                                                                                                                                                                  GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A 1501
                                                                                                                                                                                                                                                                                                                                                                              GATTTTGTGACCAGCCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                               ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATACGGGACGAACAGGGAGGATCCGTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCTGCATGTGATGCCTTGGACCAGCACCAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                            4138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4018
                                                                                                                                                                                                                                                                                                                                                                                                                                               4078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
```

맑 δ 뫄 Ş 뮍 Ś Дb S B Ś 밁 Ś D á 밁 Ş 밁 5 멍 Ś 밁 Š р á

ŧ,

```
밁
                                                                                                                                                                                                   S
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; LENGTH: 4966
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-28
                                                                                                     ર્શ
                                                                                                                                 밁
                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                 ঠ
                                           吊
                                                             á
                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 1501; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 100.0%;
Best Local Similarity 100.0%;
                                                                                                                                                                                                                                                                                                                                                                     3177
3657
                                            3597
                                                                                       3537
                                                                                                                                     3477
                                                                                                                                                                                 3417
                                                                                                                                                                                                                              3357
                                                                                                                                                                                                                                                                           3297
                                                                                                                                                                                                                                                                                                                        3237
                                                                                                                                                                                                                                                                                                                                                                                                                  3117
                                                                                                                                                                                                                                                                                                                                                                                                                                                               3057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2757
                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                 841
                                                                                                              781
                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                 GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                  GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                   AGCCCAGAGAGCTGCCTGAGGAGAGAGGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                             AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                     TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                   CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                        AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                               AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                        TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                      CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                  AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1501;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 4966;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
3716
                                                                 900
                                                                                        3596
                                                                                                               840
                                                                                                                                   3536
                                                                                                                                                           780
                                                                                                                                                                                 3476
                                                                                                                                                                                                        720
                                                                                                                                                                                                                              3416
                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                           3356
                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                        3296
                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                      3236
                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                3116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2816
                                            3656
                                                                                                                                                                                                                                                                                                                                                                                                                  3176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
```

```
밁
               δ
                                             밁
                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
US-09-845-416-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                              ; LENGTH: 4990
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-34
                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 34
                                                                                                                                                                                                                                                                                                                                                                    Sequence 34, Application US/09845416 Publication No. US20030171312A1 GENERAL INFORMATION:
                                                                                                                     Query Match 100.0%; Score 1501; Best Local Similarity 100.0%; Pred. No. 0;
                                                                                                           Matches
                                                                                                                                                                                                                                                                                  APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
CURRENT FILING DATE: 2001-04-30
                                                    2781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3897
                                                                                                         1501; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                         61
                                                   CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Þ
            AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTIGGTCAACGICCCTCTCTGCGIGGATAIGIGTCTGAACIGGCIGCIGAATGITTAIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAACAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                         ,
,
                                                                                                         Mismatches
                                                                                                                                    멂
                                                                                                                                    10;
                                                                                                         0
                                                                                                           Indels
                                                                                                                                   Length
                                                                                                        0
                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1200
  2900
                                                    2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3896
                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3836
                                                                                                           0
```

	1141 CAGCTGCATGTGATGCCTTGGACCAGCACCAGCCAAGCAAAATGACCAGCCCATGGATA 1200
	1081 GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
	1021 AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
	961 CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
	901 CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGA
	841 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC 900
	781 TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC 840
	721 CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780
	661 TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC 720
-	601 ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC 660
	541 GAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG 600
	481 AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
	421 AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC 480
	361 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420
	301 TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360
_	241 AATTAAGCCGGCAGGCACCTATTGGAGGGGGACTTTCCAGCAGTTCAGAAGCAGAACGATG 300
	181 GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGTGT
	121 GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180

δ 밁 δ 뭐 Ş 밁 5 멍 Ś В δ 밁 δ 문 ર્ 밁 Ś 뮍 Ş В δ 망 Ś 吊 Ş 밁 δ β S 밁 Ś 밁 8 뫄 Ô

```
US-09-845-416-36

i Sequence 36, Application US/09845416

i Publication No. US20030171312A1

i GENERAL INFORMATION:

APPLICANT: XIAO, XIAO

ITITLE OF INVENTION: DATA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE

ITITLE OF INVENTION UNMA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE

ITITLE OF INVENTION UNMER: US/09/845,416

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 36

LENGTH: 5060

TYPE: DNA

ORGANISM: Homo sapiens

US-09-845-416-36
                             Ś
                                                           맑
                                                                              Ś
                                                                                                              밁
                                                                                                                                       δ
                                                                                                                                                                                            Ś
                                                                                                                                                                       밁
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 1501; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches
     3151
                                                          3091
                                                                                                                3031
                                                                                                                                                                       2971
                                                                                                                                                                                                                             2911
                                301
                                                                                    241
                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4161
                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4281 A 4281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501 A 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                      61
TACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                 TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                            AATTAAGCCGGCAGGCACTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                    AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACCATG
                                                                                                          GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                      AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                          CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                          GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                 ĠŦĠĀĀĊŦŦĊĠĠĀĀĀĀĠŦĊŦĊŦĊĀĀĊĀŦŦĀĠĠŦĊĆĊĀŦŦŦĠĠĀĀĠĊĊĀĠŦŦĊŦĠĀĊĊĀĠŦ
                                                                                                                                                                                                                      AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATACGGGACGAACAGGATCCGTGTCCTGTCTTTAAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                                             DB 10;
                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                          Length 5060;
                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                  Gaps
3210
                           360
                                                     3150
                                                                                300
                                                                                                           3090
                                                                                                                                      240
                                                                                                                                                                3030
                                                                                                                                                                                            180
                                                                                                                                                                                                                       2970
                                                                                                                                                                                                                                                                            2910
                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4100
```

ţ

```
3871
                                                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3751
                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                             3931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3691
 4231
                                                                                                                                   4111
                                                                                                                                                                     1261
                                                                                                                                                                                                       4051
                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                         3991
                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                             AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                            CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                             GGACTGCCATGAMACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                                                                GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAPACAPAGTGCCCTACTATATCAACCACGAGACTCAPACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAMACAMAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCCCCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCATTGACTCTCCCAAGATCACCTCGAGAAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                 ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                       ATTTGGTCAACGTCCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320
                                                                                                                                                                                                                         TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                     ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                       TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                       4110
                                                                                                                                                                                                                                                                         4050
                                                                                                                                                                                                                                                                                                                                             3990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                   4230
                                                                                                                                   4170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
```

5

S

유

음 성

음 중 음

δ

В

Ş

음 성 음 성

8 8 8 8 8 8 8 8 8 8 8 8 8

밁

```
; SEQ ID NO 27
; LENGTH: 5149
; TYPE: DNA
; ORCANISM: Homo sapiens
US-09-845-416-27
                 δ
                                                당
                                                                                 δ
                                                                                                                      맑
                                                                                                                                            δ
                                                                                                                                                                                 밁
                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 12
US-09-845-416-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 27, Application US/09845416
Sequence 27, Application WS20030171312A1
GENERAL INFORMATION:
APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local S
Matches 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               : Local Sim
                                                                                                                                                                                                                                                 3240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4351 A 4351
                                                                                                                                                                                                                                                                                301
                                                                                         481
                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                      AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                         GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 3059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A 1501
                GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                   AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                   TACATAGGGCCTTCAAGAGGGAATTGAAAAACTAAAGAACCTGTAATCATGAGTACTCTTG 360
                                                                                                                                                                                                                                                                                                                               AATTAAGCCGGCAGGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGGITCCGATGATGCAGICCTGITACAAAGACGITTGGATAACATGAACTTCAAGTGGA 120
GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGCTGG
                                                          AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                              AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                               AATTAAGCCGGCAGCACCTATTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                           GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                          3479
                                                                                         540
                                                                                                                                                       480
 3539
                             600
                                                                                                                        3419
                                                                                                                                                                                                                     420
                                                                                                                                                                                      3359
                                                                                                                                                                                                                                                    3299
                                                                                                                                                                                                                                                                                                               3239
                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                            3179
                                                                                                                                                                                                                                                                                                                                                                                                                                         3119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
```

```
RESULT 13
US-10-149-736-40
VS-10-149-736-40
Sequence 40, Application US/10149736
Publication No. US20030216332A1
GENERAL INFORMATION:
APPLICANT: Chamberlain, Jeffrey S.
APPLICANT: Harper, Scott Q.
                                                                                                                                                                                         В
                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                   4380
                                                                                                                                                                        1441
                                                                                                                                                                                             4320
                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                         4260
                                                                                                                                                                                                                                                              1321
                                                                                                                                                                                                                                                                                    4200
                                                                                                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                                                                                              4140
                                                                                                                                                                                                                                                                                                                                                  1201
                                                                                                                                                                                                                                                                                                                                                                          4080
                                                                                                                                                                                                                                                                                                                                                                                               1141
                                                                                                                                                                                                                                                                                                                                                                                                                     4020
                                                                                                                                                                                                                                                                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                               3960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                        Þ
                                                                                                                                                                                      GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC 1500
                                                                                                                                                                                                                                                ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGT
                                                                                                                                                                                                                                                                                        ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG
                                                                                                                                                                                                                                                                                                                                     TCCTGCAGATTATTAATTGTTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACACA
                                                                                                                                                                                                                                                                                                                                                                              CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                            GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                  ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGT
                                                                                                                                                                                                                                                                                                                       TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                   CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATGACAGAGCTCTACCAGTCTTTAGCTGAACCTGAATAATGTCAGATTCTCAGCCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cadcarcroadcacrrrcrrrccacdrererecadderecerddaadaadccarcrede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCTGAAAGAGAAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                        4440
                                                                                                                                             4439
                                                                                                                                                                                        4379
                                                                                                                                                                                                             1440
                                                                                                                                                                                                                                  4319
                                                                                                                                                                                                                                                                            4259
                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                  1320
                                                                                                                                                                                                                                                                                                                         4199
                                                                                                                                                                                                                                                                                                                                                                    4139
                                                                                                                                                                                                                                                                                                                                                                                                                                                        4019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
```

Ş 문 δ

```
FILE REFERENCE: UM-06968
CURRENT APPLICATION NUMBER: US/10/149,736
CURRENT FILING DATE: 2002-06-17
PRIOR APPLICATION NUMBER: PCT/US01/31126
PRIOR APPLICATION NUMBER: PCT/US01/31126
PRIOR APPLICATION NUMBER: PCT/US01/31126
PRIOR APPLICATION NUMBER: PCT/US01/31126
PRIOR APPLICATION NUMBER: 60/238,848
PRIOR APPLICATION NUMBER: 60/238,848
PRIOR FILING DATE: 2000-10-06
NUMBER OF SEQ ID NOS: 96
SOFTWARE: PATENTIN VETSION 3.1
SOCID NO 40
LENGTH: 5339
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic
US-10-149-736-40
                          Ś
                                                          밁
                                                                             δ
                                                                                                        В
                                                                                                                                     Ş
                                                                                                                                                                     문
                                                                                                                                                                                        S
                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
Matches 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Simes 1501;
       2445
                                                                                                                2325
                                                                                                                                                                     2265
                                                                                                                                                                                                                          2205
                                                                                                                                                                                                                                                                                2145
                                                                                                                                                                                                                                                                                                                                     2085
                                                                                                                                                                                                                                                                                                                                                                                           2025
                                721
                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                1965
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1905
                                                                                                                                        601
                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1725
                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                 TCATTGACTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                GAAAAATAGATGAGACCCTTGAAAGACTCCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                  TCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGGGC
                                                                                                        ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                        ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC
                                                                                                                                                             GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                  AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                                                                                             AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                  TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                  AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA
                                                                                                                                                                                                                                                                       AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                             AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                  TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                        AATTAAGCCGGCAGGCACCTAITGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ĠĠĀĀĠĊĠŦĊŦĠĊĀĊĊŦŦŦĊŦĊŦĠĊĀĠĠĀĀĊŦŦĊŦĠĠŦĠŦĠĠĊŦĀĊĀĠĊŦĠĀĀĀĠĀŦĠĀŦĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGAACTTCGGAAAAAĞTCTCTCAACATTAĞĞTCCCATTTĞGAAĞCCAĞTTCTĞACCAĞT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGGCCAGTTCTGACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAATCCTGAGATCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100.0%; ilarity 100.0%; Conservative 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1501;
Pred. No. 0;
D; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                        780
                                                    2444
                                                                                                        2384
                                                                                                                                                              2324
                                                                              720
                                                                                                                                  660
                                                                                                                                                                                        600
                                                                                                                                                                                                                    2264
                                                                                                                                                                                                                                                                        2204
                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                              2144
                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                        2024
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964
                                                                                                                                                                                                                                                                                                                                                                                    2084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
```

```
RESULT 14

US-10-149-736-41

i Sequence 41, Application US/10149736

i Publication No. US20030216332A1

GENERAL INFORMATION:
APPLICANT: Chamberlain, Jeffrey S.
APPLICANT: Harper, Scott Q.
TITLE OF INVENTION: Mini-Dystrophin Nucleic Aci
FILE REFERENCE: UM-06968

CURRENT APPLICATION NUMBER: US/10/149,736

CURRENT FILING DATE: 2002-06-17

PRIOR APPLICATION NUMBER: PCT/US01/31126

PRIOR FILING DATE: 2001-10-04

PRIOR APPLICATION NUMBER: 60/238,848

PRIOR FILING DATE: 2000-10-06

NUMBER OF SEQ ID NOS: 96

SOFTWARE: PatentIn version 3.1

SEQ ID NO 41

LENGTH: 5462
                                                                                                                                                                                                                                                                                                                                                                                                              3105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2805
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATACGGGACGAACAGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATTTTGTGACCAGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGAC
                                                                                                                                                                                                                                                                                                                                                                          GATTTTGTGACCAGGCGCAGGCTGGGCCTCCTTCTGCATGATTCTATCCAAAATTCCAAAGAC
                                                                                                                                                                                                                                                                                                                                                                                                              ATTTGGTCAACGTCCCTCTGCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ANATGA CAGAGCT CTACCAGT CTTTAGCTGACCTGAATAATGT CAGATT CTCAGCTTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTCAGCTCTCACCGTATAACCTCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCCTTTGCTTGGATCTCTTGAGCCTGT
                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                         Acids
                                                                                                                                                      and Peptide Sequences
                                                                                                                                                                                                                                                                                                                                                        3224
                                                                                                                                                                                                                                                                                                                                                                                    1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                               3164
                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Artificial S
; FEATURE;
; OTHER INFORMATION: Syn
US-10-149-736-41
                        δ
                                                         밁
                                                                                 á
                                                                                                                  밁
                                                                                                                                   Ş
                                                                                                                                                                      밁
                                                                                                                                                                                               δ
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                 멂
                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 1501;
                                                                                                                  2628
                                                                                                                                                                        2568
                                                                                                                                                                                                                               2508
                                                                                                                                                                                                                                                                                    2448
                                                                                                                                                                                                                                                                                                                                          2388
                                                                                                                                                                                                                                                                                                                                                                                                 2328
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1848
                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                               901
                                                                                                                                           781
                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCACACAGATGTTTATCACAACCTGGATGAAAAACAGCCAAAAAAATCCTGAGATCCCTGG
                                                                                                                                                                                                                                                                                                                                                          GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                               AGGCTGAGGAGGTCAATACTGAGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGA 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACACAGATGTTTATCACAACCTGGATGAAAACAGCCAAAAAATCCTGAGATCCCTGG
                     ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGGGATCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TACATAGGGCCTTCAAGAGGGAATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA
       CAGCATCTCAGCACTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC
                                                           TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC
                                                                                                                                                                                      CTCTGAAAGAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA
                                                                                                                                                                                                                                             TCATTGACTCTCCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC
                                                                                                                                                                                                                                                                                                                                           GAAAAATAGATGAGACCCTTGAAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCCAGAGAGCTGCCTCCTGAGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT
                                                                            TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCCACAGGGACTTTGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 1501; ; Pred. No. 0; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5462;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
        2807
                               960
                                                              2747
                                                                                                                  2687
                                                                                                                                             840
                                                                                                                                                                         2627
                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                      900
                                                                                                                                                                                                                                2567
                                                                                                                                                                                                                                                          720
                                                                                                                                                                                                                                                                                    2507
                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                           2447
                                                                                                                                                                                                                                                                                                                                                                                                  2387
                                                                                                                                                                                                                                                                                                                                                                                                                                                        2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
```

ঠ

g ঠ 밁 S 밁 8 멍

밁 ঠ 밁 र् 밁 5 밁 ર્શ

ð

밁

밁 S 밁 S 밁 Ş

र्

1081 GGACTGCCATGAAACTCCGAAGACTGCAGAAGGCCCTTTGCTTTGGATCTCTTGAGCCTGT 1140	B &	Qy 1 CTCACACAGATGTTTATCACAAACCTGGATGAAAAACAGCCAAAAAAATCCTGAGATCCCTGG 60
1021 AAATGACAGAGCTCTACCAGTCTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATA 1080 	Qy Qy	Query Match 100.0%; Score 1501; DB 17; Length 8689; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
961 CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020 	Qy Db	FEATURE: OTHER INFORMATION: Synthetic US-10-149-736-42
901 CAGCATCTCAGCACTTTCTTTCCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGC 960 	Qy Qy	2 1689
841 TGCAGGTGGCCGTCGAGGACCGAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTC 900	DD QY	PRIOR APPLICATION UNMBER: 60/238,848 PRIOR FILING DATE: 2000-10-06 NUMBER OF SEQ ID NOS: 96 SOFTWARE: BATERITA VERGICA 7.1
781 TICAGCICICACCGIATAACCICAGCACTCIGGAAGACCTGAACACCAGAIGGAAGCITC 840	Db Qy	CURRENT APPLICATION NUMBER: US/10/149,736 CURRENT FILING DATE: 2002-06-17 PRIOR APPLICATION NUMBER: PCT/US01/31126
721 CTCTGAAAGAACGTGAGCCACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCA 780	D Q	APPLICANT: Chamberlain, Jeffrey S. APPLICANT: Harper, Scott Q. TITLE OF INVENTION: Mini-Dystrophin Nucleic Acids and Peptide Sequences FILE REPERENCE: IM_ACCCC
661 TCATTGACTCTCTCCAAGATCACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGC 720 	Db Qy	US-10-149-736-42 VS-10-149-736-42 ; Sequence 42, Application US/10149736 ; Publication No. US20030216332A1 ; GRMERRAL THORMARTION.
601 ACCTCAAGCTGCGCCAAGCTGAGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCC 660	B 8	Db 3348 A 3348
	Db	1501
	OV DB	
481	Qy	Db 3228 GTAAAGCAATTTGGAAGACAAGTACCTTTTCAAGCAAGTTGCAACTTCAACAG 1440 3228 GTAAAGCACATTTGGAAGACAAGTACAGATACCTTTTCAAGCAAG
480	D Qy	ATACGGGACGAACAGGAGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT
361 AGACTGTACGAATATTTCTGACAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGG 420	Db Qy	Db 3108 ATTTGGTCAACGTCCCTCTCTGCGTGGATATGTGTCTGAACTGGCTGAATGTTTATG 3167 QY 1321 ATACGGGACGAACAGGGAGGATCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGT 1380
	당 4	QY 1261 ATTTGGTCAACGTCCTCTGCGTGGATATTTATGACCGCCTGGAGCAAGAGAGACAACA 3107
	₹ ₽	1201 TCCTGCAGATTATTAATTGTTTGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACA
3360 GGAAGGGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGGCTACAGCTGAÀAGÀTĠÀTĠ 3419 241 AATTAAGCCGGCAGGCACCTATTGGAGGCACTTTCCAGCAGTTCAGAAGCAGAACGATG 300	Q 5	QY 1141 CAGCTGCATGTGATGCCTTGGACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATA 1200
181 GGAAGCGTCTGCACCTTTCTCTGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATG	y Q	2928
121 GTGAACTTCGGAAAAAGTCTCTCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGT 180 	당 성	
3240 AAGGTTCCGATGATGCAGTCCTGTTACAAAGACGTTTGGATAACATGAACTTCAAGTGGA 3299	Db :	1021
	Q B	Oy 961 CAAACAAAGTGCCCTACTATATCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCA 1020 Db 2808 CAAACAACTTCTTTTTTTTTTTTTTTTTTTTTTTTTTT

```
á
    밁
      S
        밁
           S
             밁
               र्
                  밁
                    δ
                       멍
                        ঠ
                           밁
    4680 À 4680
  1501 A 1501
```

Search completed: March 2, 2005, 20:00:31 Job time: 901.381 secs

.			
•			

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   on:
                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being put and is derived by analysis of the total score distribution.
                                                                                                                                                                                                              Score
   100.0
100.0
100.0
100.0
100.0
100.0
100.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-845-416-9_COPY_2000_3500
1501
                                                                                                                                                                                                             Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5394803 seqs, 2962729879 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IDENTITY_NUC Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 tcaacattaggtcccatttg.....gaaccccagtccatggtgtg 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 March 2, 2005, 06:35:12 ; Search time 897.381 Seconds
                                                                                                                                                                                                                               Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Published Applications NA:*
1: /cgn2_6/ptodata/2/pubpna
2: /cgn2_6/ptodata/2/pubpna
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Copyright
                                                                                                                                                                                                                                                                                                                                                              /cgn2_6/ptodata/2/pubpna/US09E_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10E_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:*cgn2_6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
(cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
(cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
(cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
(cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
                                                                                                                                                                                                             Length
                                    4498
4825
4848
4966
                                                                                                                                           3858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 _6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.6 (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                띪
   10
              US-09-845-416-10
US-09-845-416-10
US-09-845-416-6
US-09-845-416-2
US-09-845-416-2
US-09-845-416-29
US-09-845-416-35
US-09-845-416-35
US-09-845-416-34
                                                                                                                                                                                                              ij
                                                                                                                                                                                                                                                               SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (without alignments)
9911.195 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     10789606
                                                                                                                                                                                                             Description
                   Sequence 35,
Sequence 28,
Sequence 34,
                                                                    Sequence
Sequence
                                                                                                                                         Sequence
                                                                                                                                                          Sequence 10,
                                                                                                                                                                            Sequence 4,
                                                                                                         Sequence
                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                  printed,
                                                                    29, 1
                                                                                                     Appl
Appl
Appl
App
App
App
App
```

5	44	3	42	41	40	39	38	37	36	S	3	3	32	<u>υ</u>	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
114	216	324	387	545	616.8	631.2	640	640	661.8	662.4	1089	1089.6	•	1090.6	1299.4	1476	1480.8	1480.8	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501	1501
7.6	14.4	۲	Ü	٠	۲.	42.1			44.1	•	•	٠	•		•	•				100.0	•	•		•	•	•	•		100.0	•			100.0
114	216	324	387	887	5106	•	$\overline{}$	030	10705	11096	1434	5417	4414	3446	13815	1821	4476	3510	14082	14082	14082	406	406	395	395	13957	12057	11443	20	σ	5462	ü	5149
17	17	17	17	17	17	15	17	9	17	17	10	17	10	10	17	10	10	10	17	17	17	17	17	17	9	9	17	17	10	17	17	17	10
US-10-149-736-45	-10-149-736-	149-736-	-10-149-736-	-10-149-736-	-10-220-120-	-10-101-510-	736-	US-09-782-378A-23	-319A-	-10-149-736-	-09-845-416-	-10-149-736-	-09-845-416-	-09-845-416-	US-10-149-736-2	-09-845-416-	-09-845-416-	-09-845-416-	-10-342-887-	-10-172-118-	-10-341-	-10-342-	-10-172-	US-10-149-736-1	-09-880-107-22	82-3	-10-	L	-09-845-416-	-10-149-736-4	-10-149-736-	-10-149-736-	US-09-845-416-27
equence 45,	e 34,	equence 33,	equence 32,	equence 35,	equence 15	equence 667,	e 3,	23,	15	4.	15	Sequence 39, Appl	32	14	٧,	13	31,	Sequence 12, Appl	98	981	108,	434,	43	Sequence 1, Appli	228	22,	47	44	Sequence 1, Appli	42,	4	40,	Sequence 27, Appl

ALIGNMENTS

```
망
                                                             á
                                                                                                    밁
                                                                                                                                     Ś
                                                                                                                                                                                                                                                  US-09-845-416-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-845-416-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                     SEQ ID NO 4
                                                                                                                                                                            Matches 1501;
                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                            APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID NOS: 36
SOFTWARE: PatentIn Ver. 2.1
                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                     Local Similarity
                                                                                                     324
121 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 180
                                                                  61
                                                                                                                                                                                                                                                                                                    2169
                                                                  TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 383
                                                                                                                            TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 60
                                                                                                                                                                            Conservative
                                                                                                                                                                                         100.0%; Score 1501;
100.0%; Pred. No. 0;
                                                                                                                                                                            0
                                                                                                                                                                          Mismatches
                                                                                                                                                                                                               DB 10;
                                                                                                                                                                            0; Indels
                                                                                                                                                                                                           Length 2169;
                                                                                                                                                                            0;
                                                                                                                                                                            Gaps
                                 443
                                                                                                                                                                            0
```

1500

1440 1703 1380 1643 1320 1583

```
1201
                                                                 1464
                                                                                                                                                                                1344
                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                       1284
                                                                                                                                                                                                                                                                                                                                                      1164
                                                                                                                                                                                                                                                                                                1224
                                                                                                                                                                                                                                                                                                                                                                                                               1104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1044
                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                           901
                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   444
         TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                      GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAAGGGAGGA 1200
                                                     GCGTGGÁTATGTGTCTGAÁCTGGCTGCTGAÁTGTTTÁTGATACGGGÁCGAÁCÁGGGÁGGA
                                                                                                            rgaccacratritargaccoccrogagcaagcaagcacaacaarriggreaaccictererer
                                                                                                                              TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTTGGTCCAACGTCCCTCTCT
                                                                                                                                                                      ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                      ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080
                                                                                                                                                                                                                            GACTGCAGAAGGCCCTTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                             GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                   CTTTAĠĊTĠĀĊĊTĠĀĀTĀĀTĠTĊĀĠĀTTĊTĊĀĠĊTTĀTĀĠĠĀĊTĠĊĊĀTĠĀĀĀĊTĊĊĠĀĀ
                                                                                                                                                                                                                                                                                                                                                              TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                      CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                                                                                                                                                                                                                            TCAACCACGAGACTCAAACTAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTGATCAAGGGATCCTGGCAGGCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCCCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGAGTGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTGGGAĀĀĀĀTTGĀĀCCTGCĀCTCCGCTGĀCTGGCĀGĀĀĀĀĀĀTĀGĀTĠĀĠĀCCCTTĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĊĀĠĀĠĊĀĠĊĊŦŦŦĠĠĀĀĠĠĀĊŦĀĠĀĠĀĀĀĊŦĊŦĀĊĊĀĠĠĀĠĊĊĊĀĠĀĠĀĠĊŦĠĊĊŦĊĊŦĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1463
                                                                                                                                         1140
                                                      1523
                                                                                                                                                                    1403
                                                                                                                                                                                                                              1343
                                                                                                                                                                                                                                                                                     1283
                                                                                                                                                                                                                                                                                                                                            1223
                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         503
                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LENGTH: 3531
; TYPE: DNA
; ORGANISM: Homo s
US-09-845-416-10
         Ś
                                   뮍
                                                            Ś
                                                                                            밁
                                                                                                                Ş
                                                                                                                                                  뮰
                                                                                                                                                                             Ś
                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                   멼
                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                            Дb
                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 2
US-09-045-416-10
S-09-045-416-10
Sequence 10, Application US/09845416
Publication No. US20030171312A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE ,
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: PATENTIN Ver. 2.11
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                   Matches 1501;
                                                                                            1913
                                                                                                                                                   1853
                                                                                                                                                                                                            1793
                                                                                                                                                                                                                                                                    1733
                                                                                                                                                                                                                                                                                                                            1673
         361
                                                                301
                                                                                                                      241
                                                                                                                                                                               181
                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1824 G 1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1524
                                                                                                                                                                                                                                                                                                61
AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAGATGAGACCCTTG
                                                                                   CAGAGCAGCCTTTGGAAGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                            AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                             AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                          AATTGAĀĀĀCTĀĀĀĢĀĀCTĢTĀĀTCĀTGĀGTĀCTCTTGĀGĀCTGTĀCGĀĀTĀTTTCTGĀ
                                                                                                                                                                                                   TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                    TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                         TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G 1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTGGGGGCAGTAACATTGAĞCCAAGTGTCCGGAĞCTĞCTTCCAATTTĞCTAATAATAAĞC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens
                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                          DB 10;
                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                       Length
```

٥,

Gaps

0

1732 60

1972

300

2032 360 1912

1852 180 Ş

В δ B δ В δ Вb Ş 뭥 δ 망 δ B Ś 밁 5

δ 멍 5 B Ş 밁

Ş Ъ Ś Вb Ş 밁 δ 밁 Ś 뮍 Ś В

زه

밁

중 음

중 음 중

```
1381
                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                     2753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2273
                       1441
                                                          3053
                                                                                                                                2993
                                                                                                                                                                     1321
                                                                                                                                                                                                          2933
                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                    2873
                                                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                             2813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                 TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                                                                                                                                              GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGACTCCAGGAACTTCAAGAGGCCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                             GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                     TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 2752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                              TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440
                                                                                                                                                                                                                                             AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                          TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                   TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 1380
                       1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2632
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                          3112
                                                                                                                                  3052
                                                                                                                                                                                                          2992
                                                                                                                                                                                                                                                                                                                                                             2872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                       2812
```

유

8 8 8 8 8 8

8 8 8

음 중 음

```
밁
                                                      ঠ
                                                                                           밁
                                                                                                                      ð
                                                                                                                                                      밁
                                                                                                                                                                                      á
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 3
US-09-845-416-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 9, Application US/09845416 Publication No. US20030171312A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQ ID NO 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE TITLE OF INVENTION: THEREOF FILE REFERENCE: D81142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777 PRIOR APPLICATION NUMBER: 60/200,777 PRIOR FILING DATE: 2000-04-28 NUMBER OF SEQ ID NOS: 36 SOPTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: XIAO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ENGTH: 3858
                                                                                                                                                           2420
                                                                                                                                                                                                                          2360
                                                                                                                                                                                                                                                                                          2300
                                                                                                                                                                                                                                                                                                                                                           2240
                                                                                                                                                                                                                                                                                                                                                                                                                         2180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3173
                                                                                                                                                                                            421
                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    h 100.0%; Score 1501; Similarity 100.0%; Pred. No. 0; Office of Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G 3173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT 3172
                                                                                                                                                                                                                                                                                                                                                                                        CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCCAGAGAGCTGCCTCCTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGAGG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ģ 1501
ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC 660
                                                  ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC 600
                                                                                                               AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                             AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                            AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG 480
                                                                                                                                                                                                                            AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                         AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                             AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                              AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAAATAGATGAGACCCCTTG 420
                                                                                                                                                                                                                                                                                          AGGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                       AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                         AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AND USE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                             540
                                                                                              2539
                                                                                                                                                             2479
                                                                                                                                                                                                                                                                                                                                                                                                                           2239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2119
                                                                                                                                                                                                                             2419
                                                                                                                                                                                                                                                                                          2359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2179
                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                           2299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
```

3999; 0;

Gaps

120

2200 60 ٥,

2380 240 2320 180 2260

```
; Sequence 6, Application US/09845416; Publication No. US20030171312A1; GENERAL INFORMATION; GENERAL TIMPORMATION; APPLICANT: XIAO, XIAO, TITLE OF INVENTION; DNA SEQUENCE ENCO; TITLE OF INVENTION: THEREOF; FILE REFERENCE; DE1142
         /-. -. -. -. -. -. -.
                                                                                       US-09-845-416-6
                                                                                                                                                   δ
                                                                                                                                                                            밁
                                                                                                                                                                                             중 유
                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                           뫄
                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                 99
                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                        Ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                   3500
                                                                                                                                                                            3440
                                                                                                                                                                                                                       3380
                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                  3320
                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                             3260
                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                       3200
                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                             3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                 Q-
                                                                                                                                                        ດ
                                                                                                                                                                                                                CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCCATGGTGT
                                                                                                                                                                                                                                                                        TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                   AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                      AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                          GCGTGGATATGTCTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                       GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGACGACGACGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGACCACTATTTATGACCGCCTGGAGCAAGAGGACAACAATTTGGTCCACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                      TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCAACGTCCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ĠĀĊĪĠĊĀĠĀĀĠĠĊĊĊŢŢŢĠĊŢŢĠĠĀŢĊŢĊŢŢĠĀĠĊĊŢĠŢĊĀĠĊŢĠĠĀŢĠŢĠĀŢĠĊŢŢĠĠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAACCACGAGACTCAAACTACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGTCAGGCÁGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCÁCTTTCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                            PCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                               ENCODING
                              Þ
                               DYSTROPHY
                             MINIGENE
                             AND
                                                                                                                                                                       3499
                                                                                                                                                                                            1500
                                                                                                                                                                                                                 3439
                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                           3379
                                                                                                                                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                                                                                                                 3259
                                                                                                                                                                                                                                                                                                                                                                      1260
                                                                                                                                                                                                                                                                                                                                                                                           3199
                                                                                                                                                                                                                                                                                                                                                                                                                                      3139
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 6
LENGTH: 3999
Type: DNA
CORANISM: Homo sapiens
US-09-845-416-6
   Ş
                        뫄
                                           Ş
                                                                    В
                                                                                   Ś
                                                                                                             밁
                                                                                                                                  á
                                                                                                                                                         밁
                                                                                                                                                                            δ
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                          Š
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1501; Conserv
                                                                    2861
                                                                                                              2801
                                                                                                                                                         2741
                                                                                                                                                                                                   2681
                                                                                                                                                                                                                                                2621
                                                                                                                                                                                                                                                                                         2561
                                                                                                                                                                                                                                                                                                                                                                               2441
                                                                                                                                                                                                                                                                                                                                     2501
                                             781
                                                                                        721
                                                                                                                                   661
                                                                                                                                                                              601
                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2141
                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ь
                                                             CCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCCCTACTATA
                                                                            TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGAGCC
TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                          TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                               ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                           ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAACGTGAGCC
                                                                                                                                                                                                                                           AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                       AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                     AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                  AAAGACTCCAAGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                               AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                          AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                    AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                    CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1501; llarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
```

2980 900

840 2920 780 2860 720 2800 2740

600

660

2680 540 480

2560 420 2500 360 2440 300

2620

; SEQ ID NO 2 ; LENGTH: 4182 ; TYPE: DNA ; TYPE: DNA ; ORGANISM: Homo sapiens US-09-845-416-2 Query Match Best Local Similarity 100.0%; Score 1501; DB 10; Length 4182; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		/09845416 312A1	1501 G 1501 3641 G 3641	3521 TIGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1441 CAGAGATCGAAGCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1511 CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1511 CAGAGATCGAAGCGCCCTTTTCCTAGACTGGATGAGACTGGAACCCCAGTTCATTGTTTTCTTAGACTGATGATGAAAATTGTAGATCGATGATGATGATGATGATGATGATGATGATGATGATGATG	OY 1321 TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGCAGTTGGGTGAAGTTGCATCCT 1380	1261 AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1	QY 1141 GGTGGATAIGIGTCIGAACTIGGGGGATGATTTTGGAAGACAGGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGGGAGGATGATTTTGGAAGACAGAGACAGGGAGGATGATTTTGGAAGACAGAC	1081 TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTGGTCAACGTCCCTCTCT	Db 3101 ĠĀĊĪĠCĀĠĀĠĀĠĠĊĊŢŢŢĠĠĀŢĊŢŢĠĀĠĊŢĠŢĊĀĠĊŢĠĊĀŢĠĀŢĠĀŢĠĠŢĠĠ 3160 Qy 1021 ACCAGCACAACCŢCAAGCAAAAŢGĀCCĀGCCCĀŢĠĀŢĀŢŢCŢŢGĀGĀŢŢĀŢŢŢĀŢŢŢĀŢŢŢŢŢ 1080	3041 CTTTAGCTGAACTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 961 GACTGCAGAAGGCCCTTTGGCTTGGATCTCTTGAGCCTGCATGCA	Db 2981 TCAACCACGAGACTCAAAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTCACAGT 3040 OV 901 CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCATGAAACTCCGAA 960
Qy 961 Db 3284 Qy 1021 Db 3344 Qy 1081	Db 3104 Qy 841 Db 3164 Qy 901 Db 3224			Qy 541 Db 2864 Qy 601		Db 2684 Qy 421 Db 2744	Qy 301 Db 2624 Qy 361	2504 Qy 241 Db 2564		Qy 61 Db 2384 Ov 121	Qy 1 Db 2324
GACTGCAGAAGGCCCTTTGCATTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020	CCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAA			ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAAA		AGTGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGCCCTTG 2743 AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG 480	AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG 360	AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 2563 CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG 300 [TIGGAGGCGACTITCCAGCAGTTCAGAAGCAGACGATGTACATAGGGCCTTCAAGAGGG 2503 AATIGAAAACTAAAGAACCIGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240 AATIGAAAACTAAAGAACCTIGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240	TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGATGAATTAAGCCGGCAGGCA	TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 60

24 1 25 25 1		NUMBER OF SEQ ID NOS: 36 SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 30 LENGTH: 4498 TYPE: DNA ORGANISM: Homo sapiens US-09-845-416-30	APPLICANT: XIAO. APPLICANT: XIAO. TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 60/200,777	Db 3824 d 3824 RESULT 6 US-09-045-416-30 ; Sequence 30, Application US/09845416 ; Publication No. US20030171312A1 ; GRUERAL, INCOMMATION.	Db 3704 TIGGGGGCAGTAACATTGAGCCAAGTGTCCGAAGTGCCAAGTTCCAATTTGCTAATAATAAGC 3763 OY 1441 CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGAACTCGAACCCCAGTCCATGGTGT 1500 Db 3764 CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTCGAACCCCAGTCCATGGTGT 3823 OY 1501 1501		Db 3404 TGACCACTATTTATGACCGCCTGGAGGAGGAGGACACAACAATTTGGTCAACGTCCCTCTCT 3463 QY 1141 GCGTGGATATGTGTCTTGAACTTGCTGCTGCTGAATGTTATGATACGGGACGACAGGAGGA 1200 Db 3464 GCGTGGATATGTGTCTTGAACTTGGCTGCTGCAATGTTTATGATACGGGACGAACAGGGAGGA 1260 QY 1201 TCCGTGTCCTTGTTTAAAACTTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260
GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATAGCACACTTTGGAAGACA TCCGTGGTCCTGTTTTAAAACTGGCTGCTGAATGTTTATGATAGCACACTTTGGAAGACA TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACACTTTGGAAGACA TCCGTGTCCTTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTTGGAAGACA TCCGTGTCCTGTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTTGGAAGACA AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC	OY 1021 ACCAGCACACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTTGTT 1080	Qy 901 CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960	Qy 781 CCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCCCTACTATA 840	Qy 661 TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720	Qy 541 ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC 600	Qy 421 AAAGACTCCAAGAACTTCAAGAGGCCACGGATGAGCTGAAGCTGCGCCAAGCTG 480	Oy 241 CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG 300

Db 3057 ÁGGÁGÁGÁGÁCCCAGÁAÁTGTCACTCGGCTTCTACGÁAAACCAGGCTGÁGGÁGGTCAÁTÁCTG 3116 Qy 361 AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGCAGAAAAAATAGATGAGACCCTTG 420	Qy 241 CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCCAGAGAGCTTGCCTCCTG 300	Oy 121 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 180	Oy 1 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACAGTGGAAGCGTCTGCACCTTTCTC 60	20 OF C	; SEQ ID NO 29 ; LENGTH; 4825 ; TYPE: DNA ; ORGANISM: Homo sapiens	PRIOR AL	; GENERAL INFORMATION: ; APPLICANT: XIAO, XIAO ; TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE ; TITLE OF INVENTION: THERROF ; FILE REFERENCE: DE1142 ; CURRENT APPLICATION NUMBER: US/09/845,416	RESULT 7 US-09-845-416-29 ; Sequence 29, Application US/09845416 ; Publication No. US20030171312A1	Db 3930 G 3930	1441 CA 3870 CA	1391 IIGGGGGCAGIAACAIIGAGCCAAGIGCIGCCIGCIICCAAIIIGCIAAIAAIAAGC	3750 IGGGCCICCTICTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
1441 CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT	QY 1321 IGGGCCTCCTTCTGCATGATTCCAAATTCCAAGACAGTTGGGTGAAGTAGCATCCT 1300 Db 4077 IGGGCCTCCTGCATGATTCTATCCAAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 4136 QY 1381 ITGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440	1201 TCCGTGTCCTGTCTTTAAAACTGGCATCATTCCCTGTGTAAAGCACATTTTGAAAGCACATTTTTAAAACTGGCATGACATTTTCCCTGTGTAAAGCACATTTTGAAAGCACATTTTGCAAAGCACATTTCCCTGTGTAAAGCACATTTTGAAAAACTGACAAGTTTTCCCTGTGTAAAAGCACATTTTGAAAAAAACAAGTTTTTGTGAACAAGACAAGTTTTTGTGAACAAGACAAGTTTTTGTGACCAGGCAAGGCAAGTTCAAAAGAAAATTTTTGTGAACAAGAAAATTTTTAAAAAAAA	3837 TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTATTGGTCAACGTCCCTCTT 1141 GCGTGGATATGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGACAGGGAGGA 1141 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA	Qy 1021 ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080	OY 961 GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020	960		Qy 721 GAGTCAGGCAGCTGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCACTTTCTTT	OY 661 TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGGTTCTGCAGGTGGCCGTCGAGGACC 720	OY 601 ACGTCAATGACCTTGCCCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC 660	QY 541 ACCTCGAGAAAAGTCAAGGCACTTCGAGGAGAAAATTGCGCCTCTGAAAGAGAAACGTGAGCC 600	OY 481 AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTATTGACTCTCCCAAGATC 540

```
Sequence 35, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT FILING DATE: 2001-04-30

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 35
                                                          Ś
                                                                                              밁
                                                                                                                    5
                                                                                                                                                             밁
                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                         멍
                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-845-416-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -09-845-416-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 4848
TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity hes 1501; Conserv
                                3440
                                                                                              3380
                                                                                                                                                                                                                            3260
                                                                                                                                                                                                                                                                                                                                                                                                                            3080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3020
                                                                                                                                                                                                                                                                                             3200
                                                                                                                                                                                                                                                                                                                                                             3140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2780
                                                                                                                                                                                             541
                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGAGCC
                                                                                                             ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                              ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGACTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                                                                                           ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                           AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                               AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                          AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                           AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                   AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG 420
                                                                                                                                                                                                                                                                                                                                                                                                                          AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGAGAGAGACCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     USE
                                                                                       3439
                           3499
                                                                                                                                                          3379
                                                                                                                                                                                                                         3319
                                                                                                                                                                                                                                                                                          3259
                                                                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3019
                                                           720
                                                                                                                                                                                          600
                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                         3199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
US-09-845-416-28

i Sequence 28, Application US/09845416

publication No. US20030171312A1

i GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

i TITLE OF INVENTION: DNA SEQUENCE ENCODING A

TITLE OF INVENTION: THEREOF

FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT APPLICATION NUMBER: 60/200,777

PRIOR APPLICATION NUMBER: 60/200,777

PRIOR FILING DATE: 2001-04-30

PRIOR FILING DATE: 2001-04-28

NUMBER OF SEQ ID NOS: 36

SOFTWARE: PatentIn Ver: 2.1

i SEQ ID NO 28
                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                        4160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3860
                                                                                                                                                                                                                                                                                                        4280 G 4280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                        G
                                                                                                                                                                                                                                                                                                                                                                                           CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAATAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGTGGATATGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                        ENCODING A DYSTROPHY MINIGENE AND USE
```

4219

4279

1380

1200 3979 1260 4039 1320 3859 1140

3919

1020

1080

3679 960 3619

3559

•

```
Ş
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                          F
                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                          ર્
               δ
                                         밁
                                                          δ
                                                                               몽
                                                                                                      र्
                                                                                                                                  ₽
                                                                                                                                                  ঠ
                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LENGTH: 4966
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1501; Conservative C
                                                                                                                                                                                                                                                                                                                                                              3318
                                                                                                                                                                                                                                                                                                                                                                                                            3258
                                                                                                                                                                                                                           3498
                                                                                                                                                                                                                                                                      3438
                                                                                                                                                                                                                                                                                                                  3378
                                                                                      3678
                                                                                                                                   3618
                                                                                                                                                                              3558
                                                                                                                                                                                                                                                                                                                                                                                                                                                        3198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3138
                                            3738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2898
                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                     901
                                                                                                             781
                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                              AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC 720
                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960
                                                     TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                      CCACGTCTGTCCAGGGTCCCTGGGAGAGAGCCATCTCGCCAAACAAGTGCCCTACTATA
                                                                                                    TCAGCACTCTGGAAGACCTGAACAGGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                           ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                         ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                     ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAAACGTGAGCC
                                                                                                                                                                                                                                                                                   ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAGACGTGAGCC
                                                                                                                                                                                                                                                                                                                  AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                  AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; Score 1501; [; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
 3857
                                            3797
                                                                                      3737
                                                                                                             840
                                                                                                                                   3677
                                                                                                                                                                                3617
                                                                                                                                                                                                                                                                      3497
                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2957
                                                                900
                                                                                                                                                                                                                           3557
                                                                                                                                                                                                                                                                                                                   3437
                                                                                                                                                                                                                                                                                                                                                              3377
                                                                                                                                                                                                                                                                                                                                                                                                            3317
                                                                                                                                                                                                                                                                                                                                                                                                                                                        3257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3077
                                                                                                                                                         780
                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
```

```
밁
                                                                                                                                                                           ; SEQ ID NO 34
; LENGTH: 4990
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-845-416-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
US-09-845-416-34
g
                  δ
                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 34, Application US/09845416 Publication No. US20030171312A1 GENERAL INFORMATION:
                                                                                                                Query Match 100.0%;
Best Local Similarity 100.0%;
Matches 1501; Conservative 0
                                                                                                                                                                                                                                               APPLICANT: XIAO, XIAO
TITLE OF INVENTION: DHA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
TITLE OF INVENTION: THEREOF
FILE REFERENCE: DEB142
CURRENT APPLICATION NUMBER: US/09/845,416
CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION DATE: 2000-04-28
NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
                                                          2922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4398 G 4398
                           61
                                                       CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G 1501
 TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                  0
                                                                                                                              Score 1501;
Pred. No. 0;
                                                                                                                    Mismatches
                                                                                                                                               BB
                                                                                                                                               10;
                                                                                                                  0;
                                                                                                                    Indels
                                                                                                                                              Length
                                                                                                                <u>..</u>
                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020
                                                                                                                    0
```

	RESULT 11 US-09-845-416-36 i Sequence 36, Application US/09845416 publication No. US20030171312A1 GENERAL INFORMATION: APPLICANT: XIAO, XIAO TITLE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE TITLE OF INVENTION: THEREOF FILE REFERENCE: DE1142 CURRENT APPLICATION NUMBER: US/09/845,416 CURRENT FILING DATE: 2001-04-30 PRIOR FILING DATE: 2001-04-28 NUMBER OF SEQ ID NOS: 36 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 36 LENGTH: 5060 TYPE: DNA ORGANISM: Homo sapiens US-09-845-416-36	Qy 1201 TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260

음 성 음 성

정 음 성 음

유 성 유

밁

8 8 8 B

유

망

```
4252
                                                                                                                                                                                                                                                                4132
                                                                                                                                                                                                                                                                                                                                  4072
                                                                                                                                                                                                                                                                                                                                                                                                    4012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3412
                                                                4312
                                                                                                                                                                                                                                   1201
                                                                                                                                                                                                                                                                                                 1141
                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3772
                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                   TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                     GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACTTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                     TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAATTTTGGTCAACGTCCCTCTCT 1140
                                                                                                                                                                                                                                                                                                                                                                                                  ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                     ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCCTTATAGGACTGCCATGAAACTCCGAA 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT 900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                 TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440
                                                                               TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                  TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                  GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC 365:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACGTCAATGACCTTGCTCGCCAGCTTACCACCTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                              4371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
4431
                                                                                                                                4311
                                                                                                                                                                                                  4251
                                                                                                                                                                                                                                                                  4191
                                                                                                                                                                                                                                                                                                                                    4131
                                                                                                                                                                                                                                                                                                                                                                                                    4071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3411
```

음 성 음 성 음 성

8 8 8 8 8

밁 δ В δ 멼 ð 밁 ঠ 문 S 밁 ঠ В 8 밁 δ 밁

8 & 8

```
Sequence 27, Application US/09845416

Sequence 27, Application US/09845416

Publication No. US20030171312A1

GENERAL INFORMATION:
APPLICANT: XIAO, XIAO

ITITE OF INVENTION: DNA SEQUENCE ENCODING A DYSTROPHY MINIGENE AND USE
ITITE OF INVENTION: THEREOF
FILE REFERENCE: DE1142

CURRENT APPLICATION NUMBER: US/09/845,416

CURRENT FILING DATE: 2001-04-30
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR APPLICATION NUMBER: 60/200,777
PRIOR FILING DATE: 2000-04-28

NUMBER OF SEQ ID NOS: 36
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 27
LENGTH: 5149
TYPE: DNA
ORGANISM: Homo sapiens
               S
                                                 В
                                                                                                                          ક
                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
US-09-845-416-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                        S
                                                                                                    문
                                                                                                                                                            밁
                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Sim
Matches 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1441
                                                                                                         3501
                                                                                                                                                                                                                  3381
                                                                                                                                                                                                                                                                                                                             3261
                                                                                                                                                                                                                                                                                                                                                                                                                                       3141
                                                                              481
                                                                                                                                 421
                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                       AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ရ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT 1500
                                                   AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGGTCAATACTG
                                                                                                                                                                                                                                                                                     AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                       G 1501
ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                            AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                        CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                             AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
              ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCCTCTGAAAGAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                   TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 1501; ilarity 100.0%; Pred. No. 0; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                         600
                                                                                                                                    480
                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3140
 3680
                                                    3620
                                                                              540
                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                        3380
                                                                                                                                                                                                                                                                                                                             3320
                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                   3260
                                                                                                                                                                                                                                                                                                                                                                                                                                         3200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                         3560
                                                                                                                                                               3500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
RESULT 13
US-10-149-736-40
S-10-149-736-40
; Sequence 40, Application US/10149736
; Publication No. US20030216332A1
; GENERAL INFORMATION:
; APPLICANT: Chamberlain, Jeffrey S.
; APPLICANT: Harper, Scott Q.
                                                                                                  Ś
                                                                                                                        8 8
                                                                                                                                                       문
                                                                                                                                                                          Ş
                                                                                                                                                                                                 В
                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                 멍
                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                    DЪ
                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                       ф
                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Вb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮰
                                                                                                                                                             4461
                                                                                                                                                                               1381
                                                                                                                                                                                                  4401
                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                      4341
                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                         4281
                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                              4221
                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                                                                                                 4161
                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                     4101
                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                        4041
                                                                                                                                                                                                                                                                                                                                                                                                                                                             3981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3681
                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                     a.
                                                                                                        Q
                                                                                                                                  CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT
                                                                                                                                                                    TTGGGGGCAGTAACATTGAGCCAAGTGTCCCGGAGCTGCTTCCCAATTTGCTAATAATAAGC
                                                                                                                      CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGT
                                                                                                                                                                                             TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                        TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                            AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                 TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                        ĠĊĠŦĠĠĀŦĀŦĠŦĠŦĊŦĠĀĀĊŦĠĠĊŦĠĊŦĠĀĀŦĠŦŦŦĀŦĠĀŦĀĊĠĠĠĀĊĠĀĀĊĀĠĠĠĀĠĠĀ
                                                                                                                                                                                                                                                                                                                      GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGACAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                        TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTT
                                                                                                                                                                                                                                                                                                                                                                                           ACCAGCACCACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACGTCAATGACCTTGCCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                     TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                    GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTGCATGTGATGCCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                               GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTTGCATGTGATGCCTTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                 ACCAGCACAACCTCAAGCAAAATGACCAGCCCATGGATATCCTGCAGATTATTAATTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                     4581
                                                                                                       1501
                                                                                                                                                          4520
                                                                                                                                                                                              4460
                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                            1200
                                                                                                                      4580
                                                                                                                                        1500
                                                                                                                                                                           1440
                                                                                                                                                                                                                                 4400
                                                                                                                                                                                                                                                                      4340
                                                                                                                                                                                                                                                                                                                                              4220
                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                 4160
                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                          4280
                                                                                                                                                                                                                                                                                                                                                                                                                     4100
                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                        4040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               660
              Ś
밁
                                    밁
                                                 δ
                                                                      밁
                                                                                      Ś
                                                                                                           밁
                                                                                                                        S
                                                                                                                                              뮍
                                                                                                                                                              δ
                                                                                                                                                                               뭐
                                                                                                                                                                                                   S
                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                              멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
2586
                                   2526
                                                                       2466
                                                                                                            2406
                                                                                                                                               2346
                                                                                                                                                                                    2286
                                                                                                                                                                                                                                                           2166
                                                                                                                                                                                                                                                                                                                                                                                                            1926
                721
                                                    661
                                                                                        601
                                                                                                                            541
                                                                                                                                                                481
                                                                                                                                                                                                      421
                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                             61
```

```
FILE REFERENCE: UM-06968

CURRENT APPLICATION NUMBER: US/10/149,736

CURRENT FILING DATE: 2002-06-17

PRIOR APPLICATION NUMBER: PCT/US01/31126

PRIOR APPLICATION NUMBER: 60/238,848

PRIOR APPLICATION NUMBER: 60/238,848

PRIOR APPLICATION NUMBER: 96

PRIOR APPLICATION NUMBER: 900-10-06

NUMBER OF SEQ ID NOS: 96

SOFTWARE: PatentIn version 3.1

SEQ ID NO 40

LENGTH: 5339

TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Synthetic

US-10-149-736-40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches 1501;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF INVENTION: Mini-Dystrophin Nucleic Acids and Peptide Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        h 100.0%; Score 1501; Similarity 100.0%; Pred. No. 0;
                           TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                      ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                               ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                             ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
GAGTCAGGCAGCATGAAGCCCACAGGGACTTTGGTCCAGCATCTCAGCACTTT
                                                                                                                                                                                                                                    ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                      AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                              AGGTGATCAAGGGATCCTGGCAGGCCCGTGGGCGATCTCCTCTCTATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                     ANAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                  AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     °,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                 780
                                                                                                                                                          2525
                                                                                                                                                                                                                                        2465
                                                                                                                  720
                                                                                                                                                                                                  660
                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                    2405
                                                                                                                                                                                                                                                                                                                                                                                                     2345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
```

٠_

δ 밁 Ś δ

밁 S

밁

```
APPLICANT: Chamberlain, Jeffrey S.
APPLICANT: Harper, Scott Q.
TITLE OF INVENTION: Mini-Dystrophin Nucleic Aci
FILE REFERENCE: UM-06968
CURRENT APPLICATION NUMBER: US/10/149,736
CURRENT FILING DATE: 2002-06-17
PRIOR APPLICATION NUMBER: PCT/US01/31126
PRIOR APPLICATION NUMBER: 60/238,848
PRIOR FILING DATE: 2001-10-04
PRIOR APPLICATION NUMBER: 60/238,848
PRIOR FILING DATE: 2000-10-06
NUMBER OF SEQ ID NOS: 96
SOFTWARE: PatentIn version 3.1
SEQ ID NO 41
LENGTH: 5462
                                                                                                                                                                                                                                          US-10-149-736-41
                                                                                                                                                                                                 Sequence 41, Application US/10149736 Publication No. US20030216332A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3126
                                                                                                                                                                                                                                                                                                                                                                                                               3246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                    <u>ດ</u>
                                                                                                                                                                                                                                                                                                                              ດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAGAGATCGAAGCGGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCCAGTCCATGGTGT 1500
                                                                                                                                                                                                                                                                                                                                                                                                                              TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGACCACTATTTATGACCGCCTGGAGCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC
                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                           Acids
                                                                                                                                                           and
                                                                                                                                                         Peptide Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2705
                                                                                                                                                                                                                                                                                                                                                          3365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                        δ
                                                          밁
                                                                                    δ
                                                                                                                  맑
                                                                                                                                     S
                                                                                                                                                                      В
                                                                                                                                                                                              8
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; OTHER INFORMATION: US-10-149-736-41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2349
                                                             2829
                                                                                                                                                                                                                                 2649
                                                                                                                                                                                                                                                                                                                                             2529
                                                                                                                                                                                                                                                                                                                                                                                                     2469
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501;
                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                901
                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             n 100.0%; Score 1501;
Similarity 100.0%; Pred. No. 0;
01; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAAGCAGGCTGAGGAGGTCAATACTG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC
                                                          TCAACCACGAGACTCAAACAACTTGCTGGGACCATCCCAAAATGACAGAGCTCTACCAGT
                                                                                                                                                                                      AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTGAAAACTAAAGAACCTGTAATCATGAGTACTCTTGAGACTGTACGAATATTTCTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTTAGCTGACCTGAATAATGTCAGATTCTCAGCTTATAGGACTGCCATGAAACTCCGAA 960
                                                                                                                                  TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                        ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                      ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC
                                                                                                                                                                                                                                                                                                                                               ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                             ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTTCTGAAAGAGAAACGTGAGCC
                                                                                                                                                                                                                                                                                                                                                                                                      AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                      AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAAGACTCCAGGAACTTCAAGAGGCCACGGATGAGCTGGACCTCAAGCTGCGCCAAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGGCAGAGAAAAATAGATGAGACCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGAGCAGCCTTTGGAAGGACTAGAGAAACTCTACCAGGAGCCCAGAGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAGCACTCTGGAAGACCTGAACACCAGATGGAAGCTTCTGCAGGTGGCCGTCGAGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
        2948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                              2888
                                                                                                                     2828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2108
                                                                                         900
                                                                                                                                                                            2768
                                                                                                                                                                                                      780
                                                                                                                                                                                                                                  2708
                                                                                                                                                                                                                                                                                        2648
                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                               2588
                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                      2528
                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                             720
```

Ş 밁 S र् 밁 Ş

밁

Ś

밁 S В ş 8 ঠ 밁 δ 밁

B

Quer Best Matc Qy	- E 65	CURRI CURRI PRIOF PRIOF PRIOF	ו מז	Db dd	Q Db	o da yo	р <i>б</i>	Db Qy	p Q	Db Q	B 선	} B !	o g g
Query Match Best Local Similarity 100.0%; Score 1501; DB 17; Length 8689; Best Local Similarity 100.0%; Pred. No. 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Matches 1501; Conservative 0; Mismatches 0; Indels 0; Gaps 0; 1 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 60	EQ ID NO 42 EQ ID NO 42 INTER DNA ORGANISM: Artificial Sequence FEATURE: OTHER INFORMATION: Synthetic 10-149-736-42	CURRENT APPLICATION NUMBER: US/10/149,736 CURRENT FILING DATE: 2002-06-17 CURRENT FILING DATE: 2002-06-17 ERIOR APPLICATION NUMBER: ECT/US01/31126 PRIOR FILING DATE: 2001-10-04 PRIOR APPLICATION NUMBER: 60/238,848 PRIOR APPLICATION NUMBER: 60/238,848 PRIOR FILING DATE: 2000-10-06	3	4		1381 TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC 1440		1261 AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC 1320 	1201 TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA 1260 	1141 GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA 1200 	1081 TGACCACTATTTATGACCGCCTGGASCAAGAGCACAACAATTTGGTCAACGTCCCTCTCT 1140		961 GACTGCAGAAGGCCCTTTGCTTGGATCTCTTGAGCCTGTCAGCTTGCATGTGATGCCTTGG 1020
\$ \$ \$ \$	40 A0	DB Q9	D Q D Q	B 8	9d 6y	D Qy	당 성 (Q	\$ \$ 8	g & 8	B 8	용 성	Db Qy
1021 ACCACCACACCICANGCICAGA INACCAGGCCCAIGAINICCIGCAGATIATICATINATIAN ACCAGACACACACACACACACACACACACACACACACAC		781 CCACGTCTGTCCAGGGTCCCTGGGAGAGCCATCCCCCCAAACAAGTGCCCTACTATA	661 TCAGCACTCTGGAAGACCTGAACACGAAGGAGTTCTGCAGGTGGCGTCGAGGACG [601 ACGTCAATGACCTTGCTCGCCAGCTTACCACTTTGGGCATTCAGCTCTCACCGTATAACC	541 ACCTCGAGAAAGTCAAGGCACTTCGAGGAGAAATTGCGCCTCTGAAAGAGAACGTGAGCC	481 AGGTGATCAAGGGATCCTGGCAGCCCGTGGGCGATCTCCTCATTGACTCTCTCCAAGATC	421 AAAGACTICCAGGAACTTCAAGAGGCCACGGGTTGGACCTTCAAGCTCCAAGCTGGACCTGAAGCTTCAAGACTCCAAGACTCCAAGACTCCAAGACTCTGAAGCTTGAAGACTCCAAGACTTCAAGACT	3621 AGGAGAGAGCCCAGAATGTCACTCGGCTTCTACGAAAGCAGGCTGAGGAGGTCAATACTG 361 AGTGGGAAAAATTGAACCTGCACTCCGCTGACTGACGAGAAAAATAGATGAGACCCTTG				121 TTGGAGGCGACTTTCCAGCAGTTCAGAAGCAGAACGATGTACATAGGGCCTTCAAGAGGG	3321 TCAACATTAGGTCCCATTTGGAAGCCAGTTCTGACCAGTGGAAGCGTCTGCACCTTTCTC 61 TGCAGGAACTTCTGGTGTGGCTACAGCTGAAAGATGAATTAAGCCGGCAGGCA

	l G 4821	4821	밁
	G 1501	1501	Ş
T 4820	CAGAGATCGAAGCGCCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT	4761	В
T 1500	AGAGATCGAAGCCGCCTCTTCCTAGACTGGATGAGACTGGAACCCCAGTCCATGGTGT	1441	ફ
c 4760	TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTTGCTAATAAGA	4701	ğ
C 1440	TTGGGGGCAGTAACATTGAGCCAAGTGTCCGGAGCTGCTTCCAATTTGCTAATAATAAGC	1381	Ś
T 4700	TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT	4641	g
T 1380	TGGGCCTCCTTCTGCATGATTCTATCCAAATTCCAAGACAGTTGGGTGAAGTTGCATCCT	1321	ঠ
C 4640	AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC	4581	뭥
C 1320	AGTACAGATACCTTTTCAAGCAAGTGGCAAGTTCAACAGGATTTTGTGACCAGCGCAGGC	1261	Ş
A 4580	1 TCCGTGTCCTGTCTTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA	4521	8
A 1260	TCCGTGTCCTGTCTTTAAAACTGGCATCATTTCCCTGTGTAAAGCACATTTGGAAGACA	1201	ठ
Å 4520	1 GCGTGGATATGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA	4461	ᅡ
A 1200	GCGTGGATATGTGTCTGAACTGGCTGCTGAATGTTTATGATACGGGACGAACAGGGAGGA	1141	δ

Search completed: March 2, 2005, 20:00:36 Job time : 902.381 secs

•		
*		